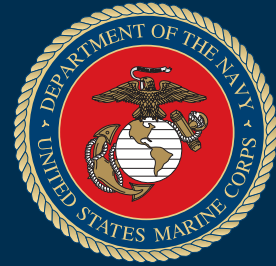


# Joint Publication 3-30



## Command and Control for Joint Air Operations



5 June 2003



Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>05 JUN 2003</b>		2. REPORT TYPE <b>N/A</b>		3. DATES COVERED <b>-</b>	
4. TITLE AND SUBTITLE <b>Command and Control for Joint Air Operations</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Joint Chiefs of Staff Washington, DC</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>The original document contains color images.</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>UU</b>	18. NUMBER OF PAGES <b>93</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## PREFACE

### 1. Scope

This publication provides fundamental principles and doctrine for the command and control of joint air operations throughout the range of military operations.

### 2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff. It sets forth doctrine to govern the joint activities and performance of the Armed Forces of the United States in joint operations and provides the doctrinal basis for US military involvement in multinational and interagency operations. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders (JFCs) and prescribes doctrine for joint operations and training. It provides military guidance for use by the Armed Forces in preparing their appropriate plans. It is not the intent of this publication to restrict the authority of the JFC from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the accomplishment of the overall mission.

### 3. Application

a. Doctrine and guidance established in this publication apply to the commanders of combatant commands, subunified commands, joint task forces, and subordinate components of these commands. These principles and guidance also may apply when significant forces of one Service are attached to forces of another Service or when significant forces of one Service support forces of another Service.

b. The guidance in this publication is authoritative; as such, this doctrine (or JTTP) will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. If conflicts arise between the contents of this publication and the contents of Service publications, this publication will take precedence for the activities of joint forces unless the Chairman of the Joint Chiefs of Staff, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States. For doctrine and procedures

not ratified by the United States, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable and consistent with US law, regulations, and doctrine.

For the Chairman of the Joint Chiefs of Staff:

A handwritten signature in black ink, appearing to read "George W. Casey, Jr.", written in a cursive style.

GEORGE W. CASEY, JR.  
Lieutenant General, USA  
Director, Joint Staff

**SUMMARY OF CHANGES**  
**REVISION OF JOINT PUBLICATION 3-30 (FORMERLY 3-56.1)**  
**DATED 14 NOV 1994**

- States that joint air operations are normally organized, planned and conducted through a functional component commander
- Provides definitions for and explanations of the terms “centralized control” and “decentralized execution”
- Clarifies the concept of a component’s air capabilities/forces
- Clarifies the joint force air component commander’s (JFACC’s) authority and command relationships
- Revises the JFACC’s responsibilities
- Clarifies the JFC's authority to determine supported/supporting relationships
- Better explains the relationships between the JFACC, the airspace control authority, and the area air defense commander
- Expands the discussion of the operations of the joint air operations center
- Replaces the “Joint Air Operations Planning Process” with the “Joint Air Estimate Process”
- Revises the previous discussion of targeting with the “Joint Air Operations Targeting Cycle” for consistency with Joint Publication 3-60
- Revises the discussion of the “Air Tasking Order Phases”
- Adds a discussion of intelligence, surveillance, and reconnaissance

Intentionally Blank

# TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY .....	vii
CHAPTER I	
INTRODUCTION	
• Scope .....	I-1
• Organization of Forces .....	I-2
• Joint Air Operations .....	I-2
CHAPTER II	
GENERAL CONSIDERATIONS FOR COMMAND AND CONTROL OF JOINT AIR OPERATIONS	
• Air Effort Available for Joint Air Operations .....	II-1
• Designation of a JFACC .....	II-1
• JFACC Authority and Command Relationships .....	II-1
• JFACC Responsibilities .....	II-2
• Airspace Control and Air Defense Considerations and the JFACC, ACA, and AADC Relationship .....	II-3
• JFACC Organization .....	II-5
• Liaisons .....	II-7
• JFACC Transition .....	II-8
• JFC Staff Option in Joint Air Operations .....	II-10
• JFC Staff Authority and Responsibilities (No JFACC Designated) .....	II-10
• JFC Staff Organization and Manning .....	II-11
• Transition of C2 for Joint Air Operations .....	II-11
CHAPTER III	
PLANNING FOR JOINT AIR OPERATIONS	
• Concept of Joint Air Operations Development .....	III-1
• Joint Air Operations Planning .....	III-1
• Joint Air Estimate Process .....	III-4
• Air Mobility Considerations .....	III-15
• Joint Air Operations Targeting Cycle .....	III-16
• The Joint Guidance, Apportionment, and Targeting Team .....	III-18
• The Joint Air Tasking Cycle .....	III-19
• Air Tasking Order Phases .....	III-20

• Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance Considerations .....	III-28
• ISR Considerations .....	III-29

## APPENDIX

A Joint Air Operations Plan Format .....	A-1
B Liaison Elements Within the JAOC .....	B-1
C JAOC Divisions and Descriptions .....	C-1
D References .....	D-1
E Administrative Instructions .....	E-1

## GLOSSARY

Part I Abbreviations and Acronyms .....	GL-1
Part II Terms and Definitions .....	GL-3

## FIGURE

II-1 Joint Force Air Component Commander Responsibilities .....	II-2
II-2 Airspace Control Procedures Objectives .....	II-4
II-3 Methods of Airspace Control .....	II-5
II-4 Joint Force Air Component Commander Staff and Joint Air Operations Center Organization .....	II-6
III-1 Concept of Joint Air Operations Development .....	III-2
III-2 Joint Air Estimate Process .....	III-4
III-3 Sample Joint Force Air Component Commander Mission Statement .....	III-6
III-4 Sample Joint Force Air Component Commander Intent .....	III-6
III-5 Intelligence Preparation of the Battlespace Topic Areas .....	III-7
III-6 Linking Strategy to Task .....	III-10
III-7 Combat Support Considerations .....	III-12
III-8 Risk Analysis: Combat Support Factors .....	III-12
III-9 Risk Analysis: Operational Factors .....	III-13
III-10 Course of Action Comparison .....	III-14
III-11 Joint Force Air Component Commander Targeting Responsibilities .....	III-18
III-12 Notional 48-Hour Joint Air Tasking Order Development Timeline .....	III-21
III-13 Joint Air Tasking Cycle .....	III-23
III-14 Master Air Attack Plan Inputs .....	III-24
III-15 Master Air Attack Plan Depiction .....	III-25



## EXECUTIVE SUMMARY COMMANDER'S OVERVIEW

- Discusses Organization for and Fundamentals of Joint Air Operations
  - Describes the Joint Force Air Component Commander's Authority, Command Relationships, and Responsibilities
  - Describes Joint Air Operations Planning
  - Discusses the Joint Air Estimate Process
  - Explains the Joint Air Tasking Cycle
- 

### Joint Air Operations

*The joint force commander (JFC) will normally designate a joint force air component commander (JFACC) to exploit the capabilities of joint air operations.*

Joint air operations are **performed with air capabilities/forces made available by components in support of the joint force commander's (JFC's) operation or campaign objectives, or in support of other components of the joint force.** Joint air operations do not include those that a component conducts as an integral part of its own operations.

*The JFC integrates the actions of assigned, attached, and supporting forces within the operational area.*

Forces conducting joint air operations may provide support to certain components while also providing the JFC an operational level force capable of being employed as part of a broader joint operation.

In order to maximize operational effectiveness and avoid duplication of effort, the joint force air component commander (JFACC) **synchronizes and integrates** the actions of assigned, attached, and supporting air capabilities/forces in time, space, and purpose. The JFACC must **exploit the unique characteristics of air capabilities/forces made available for tasking** to achieve assigned objectives as rapidly and as effectively as possible.

*Joint air operations are normally conducted using centralized control.*

**Centralized control** is placing within one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/category of operations. Through centralized control of joint air operations, the JFACC provides coherence, guidance, and organization to the air effort

and maintains the ability to focus the tremendous impact of air capabilities/forces wherever needed across the theater of operations. Additionally, this assures the effective and efficient use of air capabilities/forces in achieving the JFC's objectives. Command authorities are defined by the JFC.

*Employment of joint air operations are conducted using decentralized execution to achieve effective span of control and foster initiative, responsiveness and flexibility.*

Decentralized execution is the delegation of execution authority to subordinate commanders. This makes it possible to generate the tempo of operations required and to cope with the uncertainty, disorder, and fluidity of combat.

### **Air Effort Available for Joint Air Operations**

*The JFC determines air capabilities/forces made available for joint air operations, in consultation with component commanders.*

Component commanders make air capabilities/forces available to support the JFC's mission. These air capabilities/forces are tasked directly by the JFACC based on the JFC's air apportionment decision.

**Only the JFC has the authority to reassign, redirect, or reallocate a component's air capabilities/forces.** When a component does not have the organic air capabilities/forces to support their assigned mission, the JFACC will task available joint air capabilities/forces based on the JFC's air apportionment decision. **Component air capabilities/forces are those air capabilities/forces organic to a component that are used by the component to accomplish its assigned mission.** These organic assets should appear on the air tasking order (ATO) to enable coordination and minimize the risk of fratricide. The inclusion of component air assets on the ATO does not imply any command or tasking authority over them, nor does it restrict component commanders flexibility to respond to battlespace dynamics.

### **Joint Force Air Component Commander Authority, Command Relationships, and Responsibilities**

*JFACC authority and command relationships.*

The JFACC is given the authority necessary to accomplish missions and tasks assigned by the JFC. The JFACC typically **exercises tactical control over air capabilities/forces made available for tasking.** The JFC may also establish supporting and supported relationships between the JFACC and other

components to facilitate operations. **The JFACC conducts joint air operations in accordance with the JFC's intent and concept of the operation.**

*The responsibilities of the JFACC are assigned by the JFC.*

The JFACC's responsibilities include, but are not limited to: planning, coordinating, and monitoring joint air operations, and the allocation and tasking of joint air operations forces based on the JFC's concept of operations and air apportionment decision.

### **Airspace Control and Air Defense Considerations**

*When the JFC designates a JFACC, the JFACC normally assumes the area air defense commander and airspace control authority responsibilities.*

As the designated commander for joint air operations, the responsibility for planning, coordinating, and developing airspace control procedures and operating an airspace control system also rests with the JFACC. **When the situation dictates, the JFC may designate a separate area air defense commander and/or airspace control authority. In those joint operations where separate commanders are required and designated, close coordination is essential for unity of effort, prevention of fratricide and deconfliction of joint air operations.**

**All missions are subject to the airspace control order.** It provides centralized direction to deconflict, coordinate, and integrate the use of airspace within the operational area. (Note: This does not imply any level of command authority over any air assets). Methods to accomplish this deconfliction, coordination, and integration range from positive control of all air assets in an airspace control area to procedural control of all such assets, with any effective combination of positive and procedural control between the two extremes.

**Air defense operations must be integrated with other tactical air operations within the operational area through the air defense plan.** Weapons control procedures and airspace control measures for all air defense weapon systems and forces must be established. These procedures must facilitate defensive air operations while minimizing the risk of fratricide.

### Joint Air Estimate Process

*The Joint Air Estimate Process is a six-phase process similar to other joint estimate models that culminates with the production of the joint air operations plan.*

A Joint Air Estimate Process may be employed during deliberate planning, producing joint air operations plans supporting operation plans or operation plans in concept format, or crisis action planning in concert with other theater operations planning. **While the phases are presented in sequential order, work on them can be either concurrent or sequential.** Nevertheless, the phases are integrated and the products of each phase are checked and verified for coherence. The phases are mission analysis, situation and course of action (COA) development, COA analysis, COA comparison, COA selection, and Joint Air Operations Plan development.

### Joint Air Operations Targeting Process

*Targeting is the process of selecting and prioritizing targets and matching the appropriate response to them, taking account of operational requirements and capabilities.*

**An effective and efficient target development process coupled with an air tasking cycle is essential for the JFACC to plan and execute joint air operations.** This joint targeting process should integrate capabilities and efforts of national agencies, combatant commands, subordinate joint forces, and component commands, all of which possess varying capabilities and different requirements. The process is the same in war and military operations other than war. There are six phases to the joint targeting cycle: commander's objectives, guidance and intent; target development, validation, nomination and prioritization; capabilities analysis; commander's decision and force assignment; mission planning and force execution; and combat assessment.

The JFC will normally **delegate the authority to conduct execution planning, coordination, and deconfliction associated with joint air targeting to the JFACC and will ensure that this process is a joint effort.** The JFACC must possess a sufficient command and control infrastructure, adequate facilities, and ready availability of joint planning expertise. A targeting mechanism, tasked with detailed planning, weaponeering, and execution, is also required to facilitate the process.

*All component commanders within the joint force should have a basic understanding of each component's mission and general concept of operations/scheme of maneuver.*

**Synchronization, integration, deconfliction, allocation of air capabilities/forces, and matching appropriate weapons against target vulnerabilities are essential targeting functions for the JFACC.** Other components targeting requirements, which support their assigned missions, are provided via the target information report. Therefore, **targets scheduled for attack by component direct support air capabilities/forces should be included in the ATO for deconfliction and coordination.** All components should provide the JFACC a description of their air plan to minimize the risk of fratricide, assure deconfliction, avoid duplication of effort, and to provide visibility to all friendly forces. This basic understanding allows for coordination and deconfliction of targeting efforts between each component and within the JFC staff and agencies.

### **Joint Air Tasking Cycle**

*A joint air tasking cycle is used to provide for the efficient and effective employment of the joint air capabilities/forces made available.*

The joint air tasking cycle provides a repetitive process for the planning, coordination, allocation, and tasking of joint air missions/sorties within the guidance of the JFC. **The cycle accommodates changing tactical situations or JFC guidance, as well as requests for support from other component commanders.** The joint air tasking cycle is an analytical, systematic approach that **focuses targeting efforts on supporting operational requirements.** Much of the day-to-day joint air tasking cycle is conducted through an interrelated series of information exchanges and active involvement in plan development, target development, and air execution (through designated component liaison officers and/or messages), which provide a means of requesting and scheduling joint air missions.

**The joint air tasking cycle begins with the JFC's objectives, guidance during JFC and component coordination, and culminates with the combat assessment of previous actions.** The ATO articulates the tasking for joint air operation for a specific time period, normally 24 hours. Detailed planning normally begins 48 hours in advance of the execution period to enable the integration of all component requirements. The net result of this planning effort is that there are usually three ATOs in various stages of progress at any time.

## CONCLUSION

This publication provides fundamental principles and doctrine for the command and control of joint air operations throughout the range of military operations in order to ensure unity of effort for the benefit of the joint force as a whole.

## CHAPTER I INTRODUCTION

*“The lesson from the last war that stands out clearly above all the others is that if you want to go anywhere in modern war, in the air, on the sea, on the land, you must have command of the air.”*

**Fleet Admiral William F. Halsey to Congress after World War II**

### 1. Scope

This publication provides **fundamental principles and doctrine** for the command and control (C2) of joint air operations throughout the range of military operations in order to ensure unity of effort for the benefit of the joint force as a whole. The joint force commander (JFC) may retain C2 of joint air operations and use the joint force staff, with appropriate augmentation from air capable components, to plan and execute on the JFC’s behalf. The JFC may also organize and conduct air operations through the Service component commanders. **However, joint air operations are normally organized, planned, and conducted through a functional component commander.** Commanders of combatant commands, subordinate unified commands, and joint task forces (JTFs) should establish joint air operations policies and procedures within their commands. Variations to the relationships and procedures contained herein may be necessary to accommodate theater specific needs, but such variations must be the exception rather than the rule.



*Flight of F-16 Aircraft*

## 2. Organization of Forces

In order to accomplish the assigned mission, the JFC develops a concept of operations (CONOPS) and provides commander's intent for the assigned mission and then organizes assigned forces based on the concept. The organization should be sufficiently **flexible** to accomplish the planned objectives while **adapting** to inevitable changes in the operational environment. Unity of effort, centralized planning and direction, and decentralized execution are key considerations when organizing assigned forces.

*See Joint Publication (JP) 3-0, Doctrine for Joint Operations, for further discussion on the subject.*

a. **The JFC will normally designate a joint force air component commander (JFACC)** to exploit the capabilities of joint air operations. The JFACC directs this exploitation through a cohesive joint air operations plan (JAOP) and a responsive and integrated control system.

b. In operations of limited scope or duration, the JFC may plan, direct and control joint air operations with the assistance of the JFC staff. In that case, the command authorities and responsibilities discussed in the subsequent chapters of this document would remain with the JFC, and planning and coordination aspects would be assumed by the JFC staff.

## 3. Joint Air Operations

a. Joint air operations are **performed with air capabilities/forces made available by components in support of the JFC's operation or campaign objectives, or in support of**



*F/A-18 Aircraft*



**other components of the joint force.** Joint air operations do not include those that a component conducts as an integral part of its own operations.

b. **Joint air operations are normally conducted using centralized control.** Centralized control is placing within one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/category of operations. Through centralized control of joint air operations, the JFACC provides coherence, guidance, and organization to the air effort and maintains the ability to focus the tremendous impact of air capabilities/forces wherever needed across the theater of operations. Additionally, this assures the effective and efficient use of air capabilities/forces in achieving the JFC's objectives. Command authorities are defined by the JFC.

c. **Employment of joint air operations are conducted using decentralized execution to achieve effective span of control and foster initiative, responsiveness and flexibility.** Decentralized execution is the delegation of execution authority to subordinate commanders. This makes it possible to generate the tempo of operations required and to cope with the uncertainty, disorder, and fluidity of combat.

d. Component air operations must adhere to the guidance provided by the airspace control plan (ACP), the airspace control order (ACO), the area air defense plan (AADP), and the special instructions (SPINS) located in the air tasking order (ATO) to assure deconfliction, minimize the risk of fratricide, and optimize the joint force capabilities in support of the JFC's objectives.

e. Forces conducting joint air operations may provide support to certain components while also providing the JFC an operational level force capable of being employed as part of a broader joint operation. The JFC **integrates the actions** of assigned, attached, and supporting forces within the operational area.

*"There has been a tendency to over-emphasize long-range bombardment, and to ignore the versatile application of air power. Our Air Forces were used for any mission considered important, at any given moment. Especially misleading is the distinction made between strategic and tactical air forces. That distinction is not valid in describing the use of air power as a whole, day after day.*

*For instance, the primary mission of the strategic forces was to destroy the enemy's war industries, to deprive him of means to fight. But these same bombers, and their fighter escorts of the strategic air forces, constituted the heaviest striking power at General Eisenhower's command to sweep the Luftwaffe from the air, to isolate German ground forces from reinforcements and supplies, and to spark the advance of our ground troops by visual and radar cooperation."*

**Carl "Tooey" Spaatz**

f. In order to maximize operational effectiveness and avoid duplication of effort, the JFACC **synchronizes and integrates** the actions of assigned, attached, and supporting air capabilities/forces in time, space, and purpose. The JFACC must **exploit the unique characteristics of air**

**capabilities/forces made available for tasking** to achieve assigned objectives as rapidly and as effectively as possible.

g. Though missions vary widely across the range of military operations, the **framework and process for C2 of joint air operations are consistent**. Control of joint air operations during military operations other than war (MOOTW) is complicated by the possible use of airspace by civilian airlines, national and international agencies, governmental and nongovernmental organizations (NGOs), allied and coalition forces, and other participating entities. Joint air operations may be integrated within an existing air structure, or one may have to be established by the joint force.

## CHAPTER II

### GENERAL CONSIDERATIONS FOR COMMAND AND CONTROL OF JOINT AIR OPERATIONS

*“Air power is indivisible. If you split it up into compartments, you merely pull it to pieces and destroy its greatest asset — its flexibility.”*

Field Marshal Montgomery

#### 1. Air Effort Available for Joint Air Operations

**The JFC determines air capabilities/forces made available for joint air operations**, in consultation with component commanders.

a. Component commanders make air capabilities/forces available to support the JFC’s mission. These air capabilities/forces are tasked by the JFACC based on the JFC’s air apportionment decision.

b. **Only the JFC has the authority to reassign, redirect, or reallocate a component’s air capabilities/forces.** When a component does not have the organic air capabilities/forces to support their assigned mission, the JFACC will task available joint air capabilities/forces based on the JFC’s air apportionment decision. **Component air capabilities/forces are those air capabilities/forces organic to a component that are used by the component to accomplish its assigned mission.** These organic assets should appear on the ATO to enable coordination and minimize the risk of fratricide. The inclusion of component air assets in the ATO does not imply any command or tasking authority over them, nor does it restrict component commanders’ flexibility to respond to battlespace dynamics.

c. Component air capabilities/forces not available for joint air tasking must comply with theater rules of engagement (ROE), the ACP, the ACO, the AADP, and SPINS.

#### 2. Designation of a JFACC

**The JFC normally designates a JFACC** based on the mission, CONOPS, the missions assigned to subordinate commanders, forces available, duration and nature of joint air operations desired, and the degree of control of joint air operations required. **The JFC will normally assign JFACC responsibilities to the component commander having the preponderance of air assets and the ability to effectively plan, task, and control joint air operations.**

#### 3. JFACC Authority and Command Relationships

The JFACC is given the authority necessary to accomplish missions and tasks assigned by the JFC. The JFACC typically **exercises tactical control over air capabilities/forces made available for tasking.** The JFC may also establish supporting and supported relationships between the JFACC and other components to facilitate operations. **The JFACC conducts joint air operations in accordance with the JFC’s intent and concept of the operation.**

#### 4. JFACC Responsibilities

The responsibilities of the JFACC are assigned by the JFC. These include, but are not limited to: **planning, coordinating, and monitoring joint air operations, and the allocation and tasking of joint air operations forces based on the JFC's CONOPS and air apportionment decision.** Specific JFACC responsibilities as shown in Figure II-1, normally include:

- a. **Developing a JAOP** to best support the JFC's objectives.
- b. **Recommending to the JFC apportionment of the joint air effort**, after consulting with other component commanders, by either percentage and/or priority that should be devoted to the various air operations for a given period of time.
- c. **Allocating and tasking** of air capabilities/forces made available based on the JFC's air apportionment.

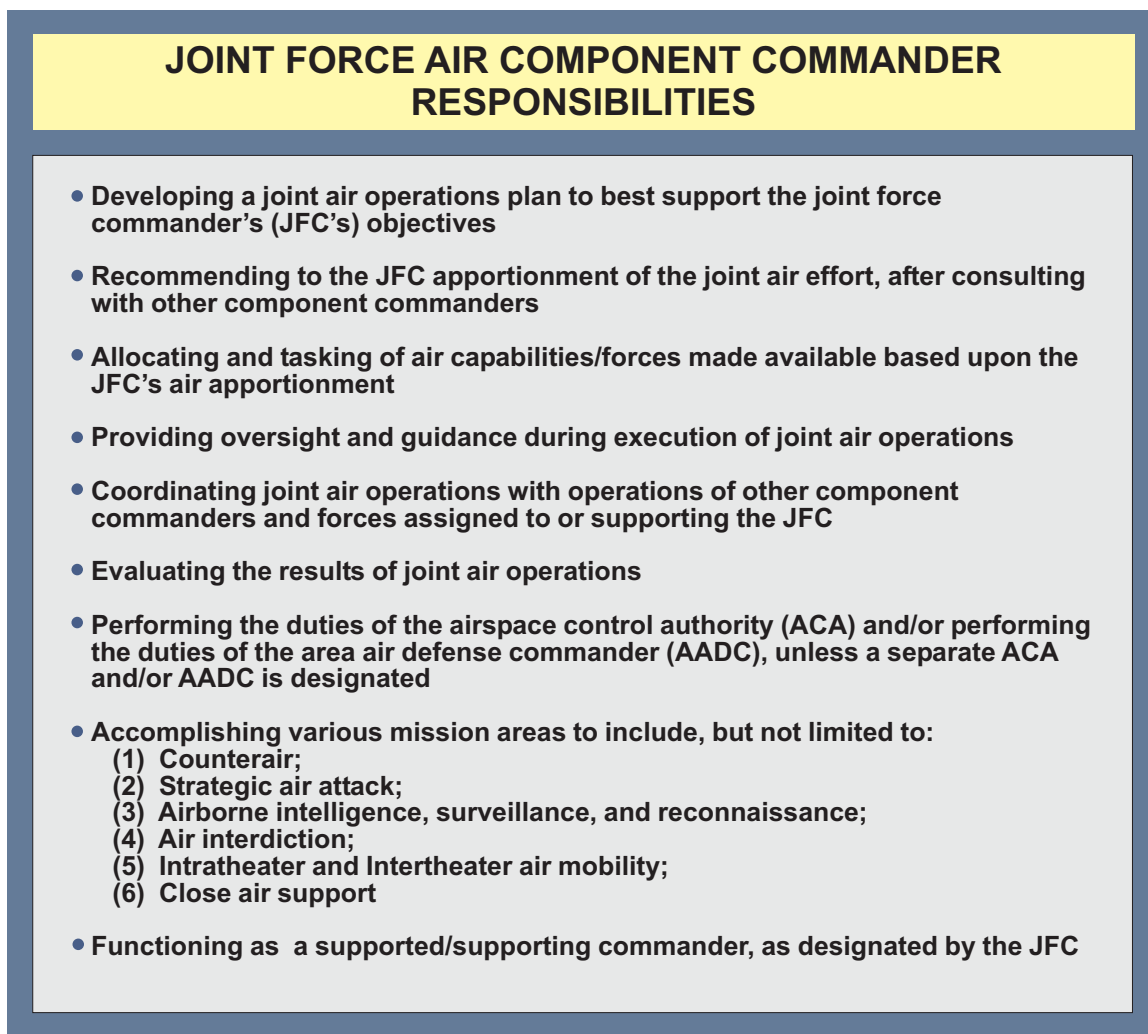


Figure II-1. Joint Force Air Component Commander Responsibilities

d. **Providing oversight and guidance during execution of joint air operations to include** making timely adjustments to taskings of available joint air capabilities/forces. **The JFACC will coordinate with the JFC and affected component commanders, as appropriate, when the situation requires changes to planned joint air operations.**

e. **Coordinating joint air operations with operations of other component commanders and forces assigned to or supporting the JFC.** For example, coordination may be required with combat search and rescue (CSAR) operations, information operations (IO), the joint force special operations component commander (JFSOCC), joint force maritime component commander, and the joint force land component commander (JFLCC), for integration, synchronization, and deconfliction.

f. **Evaluating the results of joint air operations** and forwarding assessments to the JFC to support the overall combat assessment (CA) effort.

g. **Performing the duties of the airspace control authority (ACA),** unless a separate ACA is designated.

h. **Performing the duties of the area air defense commander (AADC),** unless a separate AADC is designated.

i. In concert with the above responsibilities, **accomplishing various mission areas to include, but not limited to:**

- (1) Counterair.
- (2) Strategic air attack.
- (3) Airborne intelligence, surveillance, and reconnaissance (ISR).
- (4) Air interdiction.
- (5) Intratheater and intertheater air mobility.
- (6) Close air support.

j. **Functioning as a supported/supporting commander** as designated by the JFC.

## **5. Airspace Control and Air Defense Considerations and the JFACC, ACA, and AADC Relationship**

**When the JFC designates a JFACC, the JFACC normally assumes the AADC and ACA responsibilities** since air defense and airspace control are an integral part of joint air operations. As the designated commander for joint air operations, the responsibility for planning, coordinating, and developing airspace control procedures and operating an airspace control

system also rests with the JFACC (see Figure II-2). **When the situation dictates, the JFC may designate a separate AADC and/or ACA. In those joint operations where separate commanders are required and designated, close coordination is essential for unity of effort, prevention of fratricide and deconfliction of joint air operations.**

a. **All air missions are subject to the ACO.** It provides direction to deconflict, coordinate, and integrate the use of airspace within the operational area. (Note: This does not imply any level of command authority over any air assets). Methods to accomplish this deconfliction, coordination, and integration range from **positive control of all air assets** in an airspace control area to **procedural control of all such assets**, with any effective combination of positive and procedural control between the two extremes (see Figure II-3). It is up to the JFACC, through the ACP, to decide the appropriate method based on the JFC's CONOPS.

b. **Airspace Control in a MOOTW Environment.** Depending on the mission, the degree of control of air assets may need to be rigorous and the ROE may be more restrictive. This is especially true in a MOOTW environment that can transition quickly from combat to noncombat and back again and often has constraints on the forces, weapons, and tactics employed. Consequently, as a minimum, **in MOOTW environments prone to such fluctuations, all air missions, including both fixed- and rotary-wing of all components, should appear on the appropriate ATO and/or flight plan. All aircraft must adhere to common procedures.** This type of rigorous control is necessary during such MOOTW because the mix of friendly, adversary, and neutral aircraft and mission constraints require the JFC to strictly control flights in the operational area. No matter what methods the JFC chooses, they need to be continually evaluated for effectiveness and efficiency as the environment and mission change.

c. **Air Defense Considerations.** Air defense operations must be integrated with other tactical air operations within the operational area through the air defense plan (ADP). Weapons control procedures and airspace control measures for all air defense weapon systems and forces must be established. These procedures must facilitate defensive air operations while minimizing the risk of fratricide.

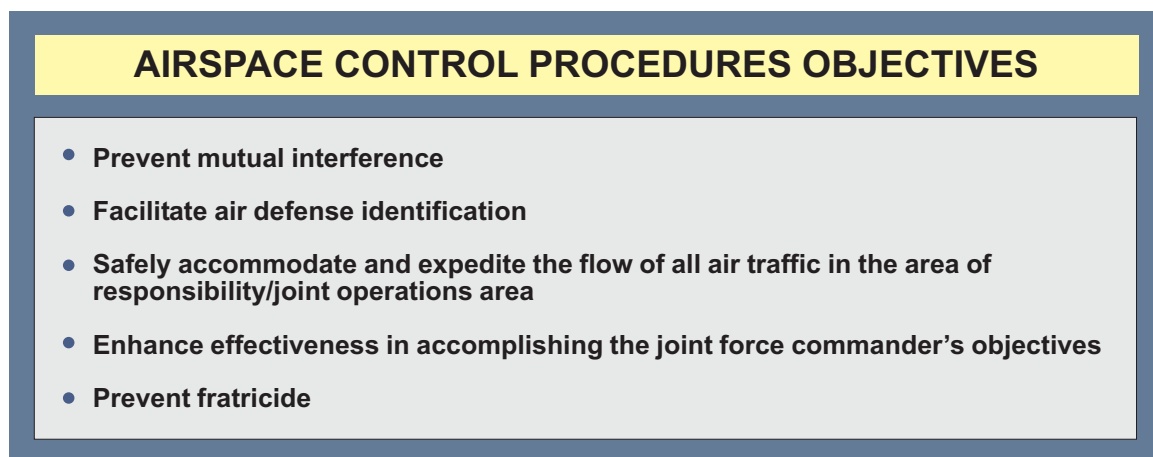


Figure II-2. Airspace Control Procedures Objectives

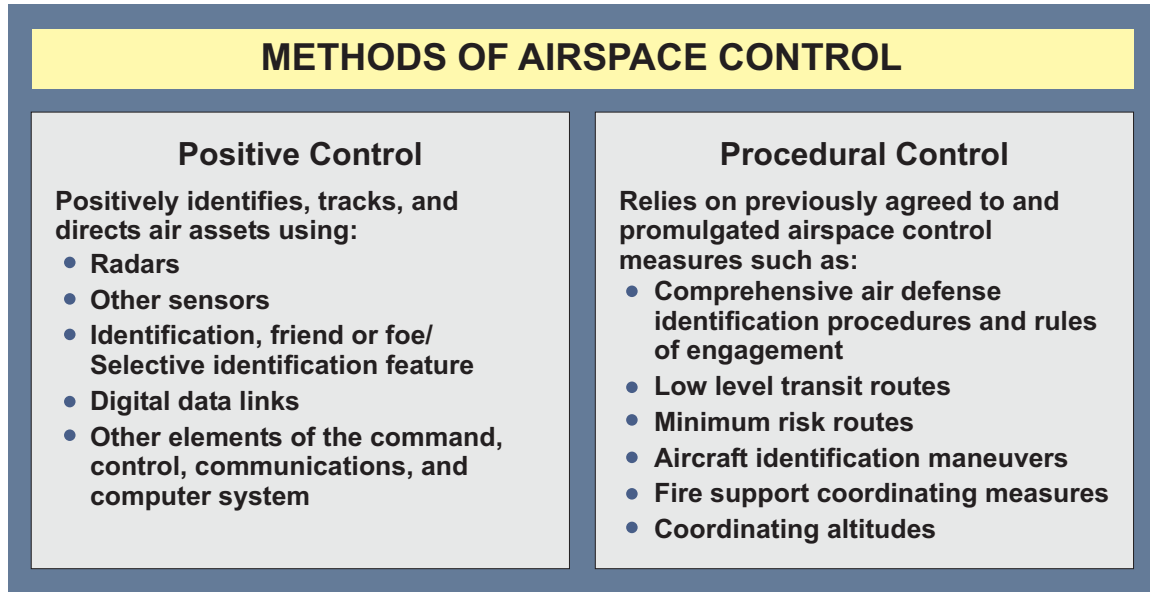


Figure II-3. Methods of Airspace Control

For further detailed discussion for methods and responsibilities, see JP 3-01, Joint Doctrine for Countering Air and Missile Threats.

## 6. JFACC Organization

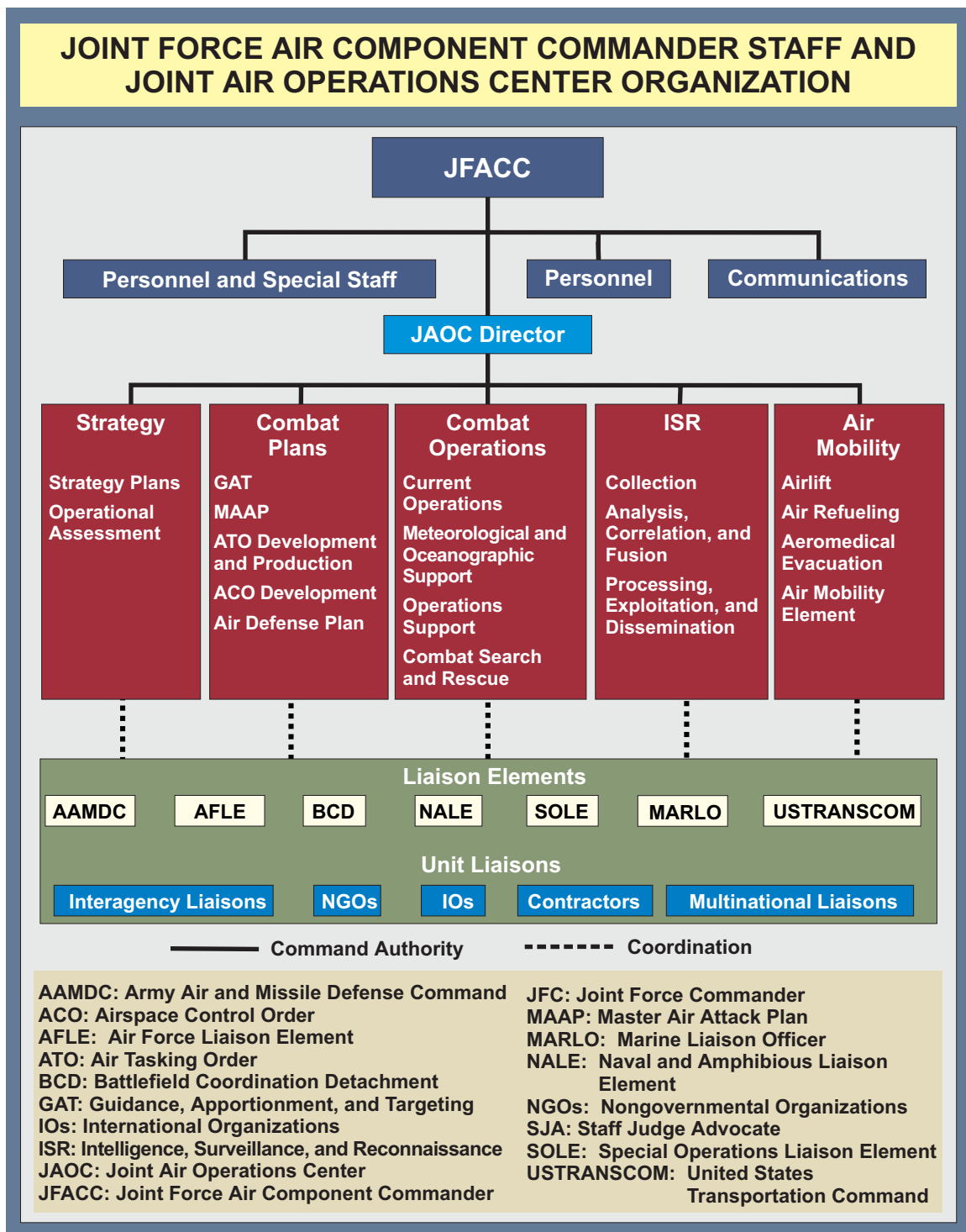
The JFACC will normally operate from a joint air operations center (JAOC). The JFACC's staff should be manned with subject matter experts who reflect the capabilities/forces available to the JFACC for tasking and include appropriate component representation. This representation will provide the JFACC with the knowledge and experience required. Functional component staffs require advance planning for efficient operations. JFACC staff billets requiring specific expertise or individuals should be identified, staffed accordingly, trained, and employed during peacetime exercises to ensure their preparedness for combat or MOOTW. To be most effective, the JFACC should incorporate appropriate component representation throughout the staff, rather than just limiting them to a liaison position.

a. **Functional Area and Mission Experts.** Functional area experts (such as intelligence, IO, logistics, space operations, legal, airspace, plans, and communications personnel) provide the critical expertise in support, plans, execution and assessment functions. Mission experts in air-to-air, air-to-ground, ground-to-air, reconnaissance, air refueling, and others provide the technical warfighting expertise required to plan and employ capabilities/forces made available by the components. Functional and mission experts from other components will provide manning throughout the JAOC and at all levels of command.

b. **Preparation.** For each specific operation, the **nucleus of the JFACC staff should be trained in joint air operations and be representative of the joint force.** Staff augmentation with manning as identified above ensures joint representation throughout the JAOC. The JFACC, in coordination with other component commanders, will determine specific manning requirements



based on the size and scope of the operation, force list, and personnel availability. Figure II-4 depicts a notional organization of the JFACC staff and the JAOC.



**Figure II-4. Joint Force Air Component Commander Staff and  
Joint Air Operations Center Organization**



(1) **The JAOC is structured to operate as a fully integrated node and staffed by members of all participating components to fulfill the JFACC's responsibilities.** The JAOC Director focuses on integrating the planning, coordinating, allocating, tasking and executing tasks and coordinates with the director of mobility forces (DIRMOBFOR) to meet the airlift and tanker priorities. JAOC organizations may differ. Functions that should be common to all JAOCs are combat plans and combat operations. Divisions, cells, or teams within the JAOC should be established as required. For example, planning future joint air operations and assessing past operations may be the responsibility of a strategy division, while the plans division may be devoted to near-term planning and drafting the daily ATO. Execution of the daily ATO is carried out by combat operations and closely follows the action of current joint operations; shifting air missions from their scheduled times or targets and making other adjustments as the situation requires. A separate air mobility division may be responsible for integrating intertheater and intratheater airlift, aerial refueling, and aeromedical evacuation into the air plan and providing liaison with United States Transportation Command (USTRANSCOM), while an ISR division will match collection requirements with integrated ISR assets.

*See JP 3-17, Joint Doctrine and Tactics, Techniques, and Procedures for Air Mobility Operations, for further detail on air mobility.*

(2) Each of the JAOC's major activities rely on expertise from **liaisons** (e.g., battlefield coordination detachment [BCD], Army Air and Missile Defense Command [AAMDC] liaison team, naval and amphibious liaison element [NALE], Air Force liaison element [AFLE], special operations liaison element [SOLE], Marine liaison officer [MARLO]) to coordinate requests or requirements and maintain a current and relevant picture of the other component operations.

c. Finally, **the role of intelligence is extremely important** and is an integral part of the daily functions of the JAOC. Intelligence personnel monitor and assess adversary capabilities and intentions and provide assistance in target, weapon, and platform selection, unmanned aerial vehicle tasking, and weapons of mass destruction (WMD) response. They also conduct battle damage assessment (BDA) and provide an up-to-date picture of the adversary, expected adversary operations, and the status and priority of assigned targets to assist in execution day changes.

## 7. Liaisons

The components have ready access to the JFACC, the JFACC's staff, and the other components through their liaison personnel. These **liaisons work for their respective component commanders and work with the JFACC and staff**. Each component normally provides liaison elements (BCD, AAMDC, NALE, SOLE, and others as appropriate) that work within the JAOC. These liaison elements consist of personnel who provide component planning and tasking expertise and coordination capabilities. They help integrate and coordinate their component's operations with joint air operations.

*See Appendix B, "Liaison Elements Within the JAOC."*

a. **Component Liaisons.** Component liaisons serve as conduits for direct coordination between the JFACC and their respective component commanders. **Liaisons should possess the authority to represent their component commander on time-sensitive and critical issues.** They must be equipped and authorized to communicate directly with their respective component commander. The liaisons have the responsibility of presenting component perspectives and considerations regarding planning and executing joint air operations. Component liaisons must be familiar with the details of all component air, surface, and subsurface missions, to coordinate their impact on joint air operations, and its impact upon them.

b. **Other Liaisons.** International organizations, other government agencies, and NGOs conduct activities near or in areas of military operations. Per JP 1, *Joint Warfare of the Armed Forces of the United States*, “Combatant commanders must be cognizant of these organizations and their actions. To the extent possible, commanders should assure that these organizations’ efforts and the military efforts are integrated, complementary, or not in conflict; and establish coordination and mutual support mechanisms as needed to eliminate or mitigate conflict and support US goals in the region.” Liaisons from these organizations to the JFACC may be appropriate. Multinational partners, particularly in operations being conducted in conjunction with or in close proximity to those of allied nations, may provide liaisons that work with the JFACC to ease coordination between forces. They work with the JFACC to coordinate the activities of their sending organizations.

## 8. JFACC Transition

Procedures for joint air operations are designed to exploit the flexibility of air power to achieve joint force objectives while providing support to component operations. Joint air operations scenarios may vary, and each scenario requires extensive planning when transition of JFACC responsibilities is necessary.

a. **Land-based JFACC.** In large-scale air operations a land-based JFACC and JAOC is normally desirable because of enhanced logistics, communications, and other required equipment and workspace that may not be available on sea-based facilities.

b. **Sea-based JFACC.** The JFACC and JAOC should be sea-based when any one of the following conditions are present:

(1) Maritime forces provide the preponderance of air assets and the capability to effectively plan, task, and control joint air operations.

(2) Land-based facilities or sufficient infrastructure does not exist.

(3) A secure land-based area is not available and ground support forces are forced to withdraw.

c. **JFACC Transition.** Effective joint air operations planning must contain provisions to transition JFACC responsibilities between components.

(1) **Planned Transition.** The JFACC should develop a plan for transition of JFACC duties to another component or location. Planned JFACC transitions are possible as a **function of buildup or scale down of joint force operations**. During transition of JFACC responsibilities, the component passing responsibilities should continue monitoring joint air planning, tasking, and control circuits, and remain ready to reassume JFACC responsibilities until the gaining component has achieved full operational capability.

(2) **Unplanned Transition.** During unplanned shifts of JFACC responsibility, as a possible result of battle damage or major C2 equipment failure, a smooth transition is unlikely. Therefore, **the JFC should predesignate alternates** (both inter- and intra-component) and establish preplanned responses/options to the temporary or permanent loss of primary JFACC capability. Frequent backup and exchange of databases is essential to facilitate a rapid resumption of operations should an unplanned transition occur.

(3) **Transition Events.** The following events may cause the JFACC responsibilities to shift:

(a) Coordination requirements related to ATO planning and execution exceed the component capability.

(b) Buildup or relocation of forces shifts preponderance of the air capabilities/forces and the ability to effectively plan, task, and control joint air operations to another component commander and the JFC decides that the other component is in a better position (location, C2 capability, or other considerations) to accomplish the JFACC responsibilities.

(c) Command, control, communications, computers, and intelligence (C4I) capability becomes unresponsive or unreliable.

(4) **Considerations.** Considerations to aid in JFACC transition planning and decisions include:

(a) Continuous, uninterrupted, and unambiguous guidance and direction for joint air operations must be the primary objective of any JFACC transition.

(b) Appropriate C4I capabilities to ensure shift of JFACC duties is as transparent to the components as possible.

(c) Specific procedures for coordinating and executing planned and unplanned shifts of JFACC should be published in the JAOP.

(d) The relieving component must have adequate communications, connectivity, manning, intelligence support, and C2 capability prior to assuming JFACC responsibilities.

(e) Current ATO, SPINS, ACO, joint integrated prioritized target list (JIPTL), force disposition, adversary situation, and order of battle.

(f) The JFC's objectives to conduct supporting joint air operations.

(g) Established timely, reliable, and secure communications links with all appropriate coordination cells to facilitate continuous and dynamic exchange of information.

(h) Complete familiarity with the AADP and ACPs.

(i) Complete and current databases to expedite the transition.

### 9. JFC Staff Option in Joint Air Operations

**The JFC normally appoints a JFACC.** However, the JFC may elect to directly task joint force air capabilities/forces. In those situations, the JFC would retain command authority and responsibility and would normally request augmentation from appropriate components to perform the JFACC function and assist in planning and coordinating joint air operations.

a. Factors for consideration in determining whether or not to appoint a JFACC.

(1) Span of control is the JFC's ability to effectively manage the actions of subordinates. Span of control is based on the number of subordinates, number of activities, range of weapon systems, force capabilities, the size and complexity of the operational area, and the method used to control operations (centralized or decentralized).

(2) When joint air operations are the only operations or the duration and scope of air operations are of a very limited nature, the JFC may elect to plan, direct, and control joint air operations.

b. If a JFACC is not designated, unity of effort in joint air operations requires the JFC to centrally plan, direct, and coordinate joint air operations with other joint force operations.

(1) The JFC may delegate authority and assign responsibility for various aspects of joint air operations to subordinate commanders.

(2) Subordinate commanders make decisions based on the JFC's mission, guidance, and intent.

### 10. JFC Staff Authority and Responsibilities (No JFACC Designated)

**The JFC staff derives its authority from the JFC,** who assigns responsibilities based on the estimate of the situation. JFC staff relationships and responsibilities must be specified early in the planning process. Although command authority for tasking subordinate commanders is retained by the JFC, the JFC may assign responsibility for coordinating joint air operations to a staff division (e.g., operations directorate of a joint staff [J-3]), a specific staff officer in a staff division (e.g., J-3 air officer), a special staff, or to a Service component.

a. **Planning.** The JFC staff **prepares the JAOP** to support the JFC's objectives. They may also prepare the ACP and AADPs.

b. **Coordination.** The JFC staff **coordinates joint air activities with other operations in the operational area.** As appropriate, subordinate commanders and coordinating agencies furnish liaison elements and augmentation personnel to the JFC staff to coordinate with the joint force.

c. **Execution.** The JFC staff **monitors the execution of joint air operations by subordinate commanders** tasked through the ATO. This may include redirecting sorties, as directed by the JFC, to accomplish joint force objectives.

d. **Supporting Operations.** Joint air operations **may require support** (e.g., suppression of enemy air defenses, ground-based air defense) **from resources other than aircraft.** The JFC may direct components to support joint air operations with assets, capabilities, or forces, in addition to the air capabilities/forces provided.

### 11. JFC Staff Organization and Manning

The JFC staff should be organized and manned so that **Service and functional component representation generally reflects the composition of the joint force.** The JFC staff operates out of the joint operations center (JOC). Under the JFC staff option, the **JOC also functions as the JAOC.** From the JOC, the JFC staff plans and monitors the execution of joint air operations. JFC staff manning should include expertise necessary to effectively plan and execute joint air operations.

*See JP 0-2, Unified Action Armed Forces, JP 3-0, Doctrine for Joint Operations, and JP 5 00.2, Joint Task Force Planning and Guidance Procedures, for more information on joint staffs.*

### 12. Transition of C2 for Joint Air Operations

The JFC may choose to assign C2 of joint air operations to a JFACC when the duration and scope of joint air operations exceed the JFC's span of control. Additionally, the JFC may transfer designated mission experts and functional area augmentees from the JFC staff to the JFACC's JAOC to assist in the transition and coordination of joint air operations. Conversely, a transition from JFACC to JFC staff may also be directed when the JFC determines that operational requirements warrant such a change.

Intentionally Blank

## CHAPTER III

### PLANNING FOR JOINT AIR OPERATIONS

*“It is improbable that any terrorization of the civil population which could be achieved by air attack would compel the Government of a great nation to surrender. In our own case, we have seen the combative spirit of the people roused, and not quelled, by the German air raids. Therefore, our air offensive should consistently be directed at striking the bases and communications upon whose structure the fighting power of his armies and fleets of the sea and air depends.”*

Winston Churchill (1917)

#### 1. Concept of Joint Air Operations Development (Note: The following discussion reflects that the JFC has designated a JFACC)

Planning for joint air operations begins with **understanding the JFC’s mission**. The JFC’s **estimate** of the political, religious, cultural, economic, military, and social forces affecting the operational area and articulation of the objectives needed to accomplish the mission from the basis for determining components’ objectives. The JFACC uses the JFC’s mission, estimate and objectives, commander’s intent, CONOPS, tasks to subordinate units, commander’s critical information requirements, and the components’ objectives to devise an **estimate of the situation**. This estimate follows a systematic series of steps to formulate a **course of action (COA)**. When the JFC approves the JFACC’s COA, it becomes the concept of joint air operations — expressing what, where, and how joint air operations will affect the adversary or current situation. The JFACC’s daily guidance ensures that joint air operations effectively support the joint force objectives while retaining enough flexibility to adjust to the dynamics of military operations (see Figure III-1).

#### 2. Joint Air Operations Planning

The JFACC is responsible for joint air operations planning and develops a JAOP to guide employment of the air capabilities/forces made available to accomplish the missions assigned by the JFC.

a. **JFACC Planning Responsibilities.** The JFACC’s role is to provide focus and guidance to the staff. The amount of direct involvement depends on the time available, preferences, and the experience and accessibility of the staff. The JFACC uses the entire staff during planning to explore the full range of probable and likely adversary and friendly COAs and to analyze and compare friendly air capabilities with the adversary threat. **The JFACC must ensure that planning occurs in a collaborative manner with other components.** Joint air planners should meet on a regular basis with planners from other components to support integration of operations across the joint force.

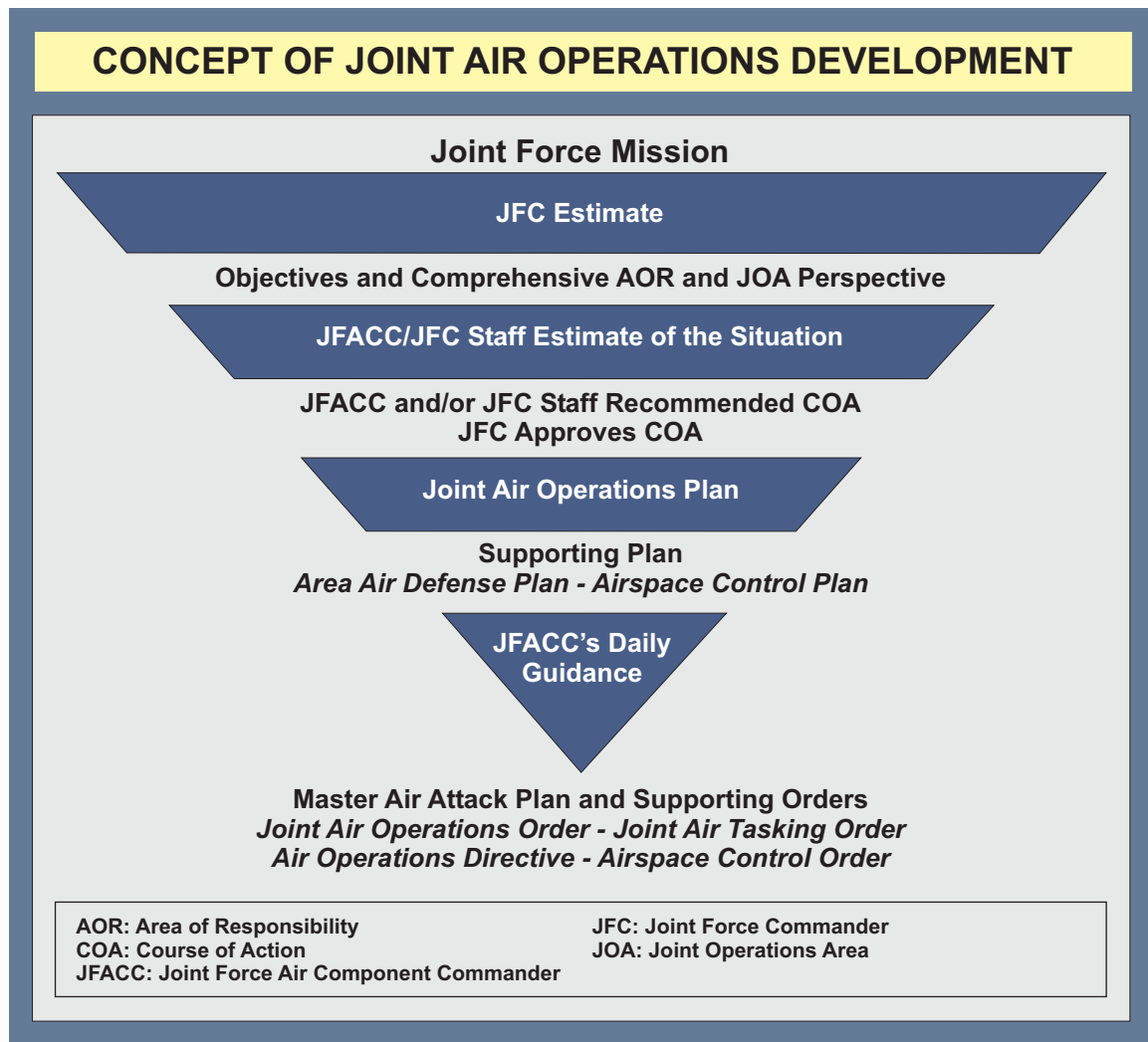


Figure III-1. Concept of Joint Air Operations Development

*“Airpower has become predominant, both as a deterrent to war, and — in the eventuality of war — as the devastating force to destroy an enemy’s potential and fatally undermine his will to wage war.”*

**General Omar Bradley**

b. **The JAOP is the JFACC’s plan for integrating and coordinating joint air operations.** It encompasses operations of air capabilities/forces from joint force components. Planning is a continuous process and only ends with mission accomplishment. Adversaries will attempt to frustrate the plan, and those personnel serving on a JFACC staff must expect changes and be ready to make them in a time-constrained environment. The staff assigned to develop the plan should include representation from all components providing air capabilities/forces. Representatives from each component enable coordination and greater understanding of all component capabilities/forces. Expertise requirements may include, but are not limited to:



- (1) Air and missile defense planning.
- (2) Reconnaissance/surveillance.
- (3) CSAR.
- (4) Special operations.
- (5) Electronic warfare.
- (6) Weapons system capabilities.
- (7) Targeting.
- (8) Mission planning.
- (9) Political-military affairs.
- (10) Intelligence.
- (11) IO.
- (12) Logistics.
- (13) Air mobility (airlift and air refueling) planning.
- (14) Theater meteorology and oceanography (METOC).
- (15) Modeling and simulation.
- (16) Public affairs.
- (17) Legal.
- (18) Religious/cultural.
- (19) Administrative support.
- (20) Space operations.
- (21) Command, control, communications, and computers.
- (22) Aeromedical evacuation (AE)/medical care.
- (23) Airspace control.

(24) Psychological operations (PSYOP).

### 3. Joint Air Estimate Process

The Joint Air Estimate Process is a six-phase process similar to other joint estimate models (reference JP 3-0, *Doctrine for Joint Operations*, and JP 5-00.2, *Joint Task Force Planning Guidance and Procedures*) that culminates with the production of the JAOP. A Joint Air Estimate Process may be employed during deliberate planning, producing JAOPs supporting operation plans (OPLANs) or concept plans (CONPLANs), or crisis action planning in concert with other theater operations planning. While the phases are presented in sequential order, work on them can be either concurrent or sequential. Nevertheless, the phases are integrated and the products of each phase are checked and verified for coherence. Figure III-2 illustrates the six phases.

#### a. Phase 1. Mission Analysis

(1) Mission analysis is critical to ensure thorough understanding of the task and subsequent planning. It results in the JFACC's mission statement that includes the "who, what, when, where and why" for the joint air operation. Anticipation, prior preparation, and a trained staff are critical to a timely mission analysis. Staff estimates generated during mission analysis are continually revisited and updated during the course of planning and execution.

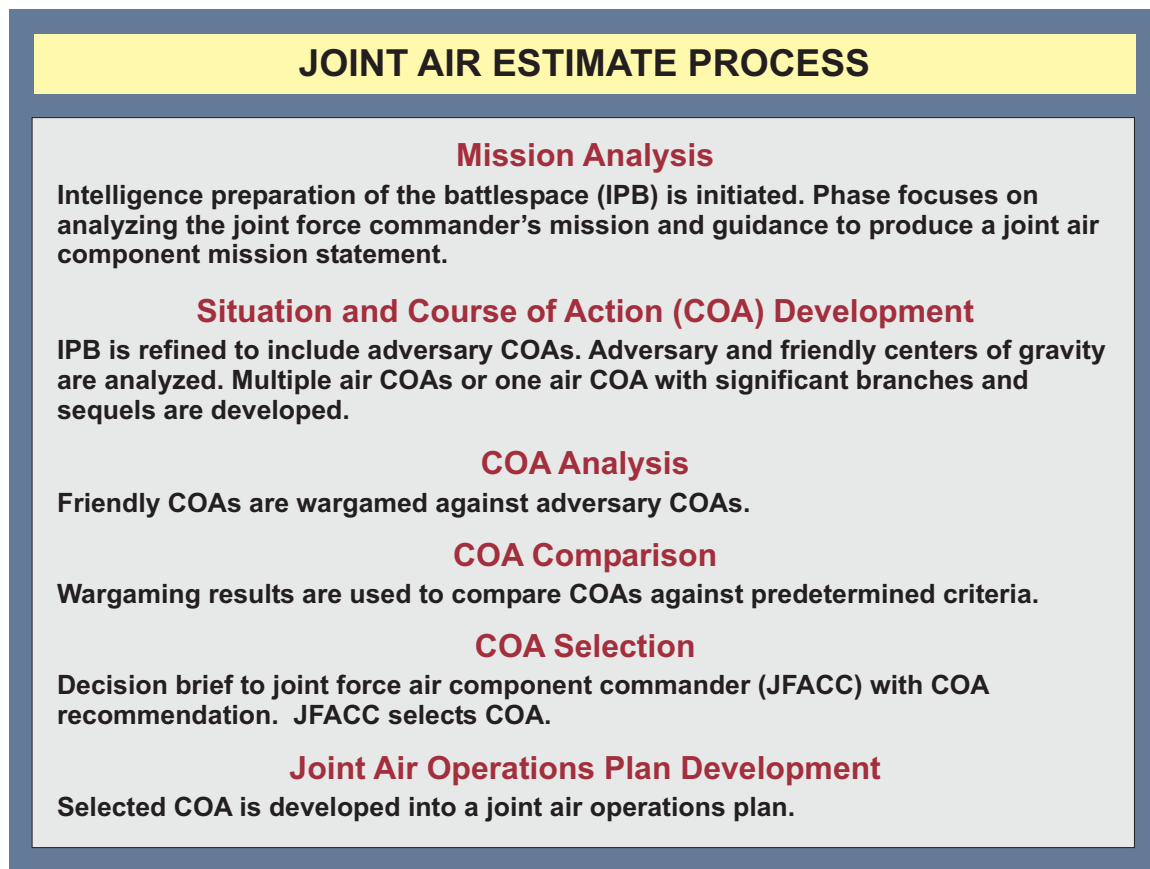


Figure III-2. Joint Air Estimate Process

(2) Mission analysis begins by developing a list of critical facts and assumptions. **Facts** are statements of known data concerning the situation. **Assumptions** are suppositions about the current or future situation and replace facts and fill the gaps.

(3) **Intelligence preparation of the battlespace (IPB)** continuously examines friendly and adversary capabilities and the operational environment. During mission analysis, IPB focuses on those broad aspects of capabilities, intentions, and the environment. IPB must identify adversary and friendly centers of gravity (COGs) (strategic and operational).

(4) The staff next determines specified and implied tasks. **Specified tasks** are assigned specifically to the JFACC by the JFC. **Implied tasks** support accomplishing a specified task and are derived from a detailed analysis of the JFC's order, the adversary situation and COAs, and the operational environment. Retain implied tasks requiring allocation of resources. The staff then determines those tasks that must be executed to accomplish the JFACC's mission; these are the essential tasks.

(5) The JFACC and staff examine readiness of all available air capabilities/forces to determine if there is enough to perform all specified and implied tasks. **The JFACC identifies additional resources needed for mission success to the JFC.** Factors to consider include available forces (including multinational contributions), command relationships (national and multinational), force protection requirements, ROE, laws of war, applicable treaties and agreements (including the existence of a status-of-forces agreement), base-use (including land, sea, and air) and overflight rights, logistic information (what is available in theater ports, bases, depots, war reserve materiel, host-nation support [HNS]), and what can be provided from other theaters.

(6) The mission analysis phase is conducted by the JFACC staff and presented to the JFACC. The mission analysis provides an overview of the process undertaken and information developed thus far and concludes with a proposed **mission statement** to the commander (see Figure III-3). The JFACC either approves the revised statement or provides further guidance. The **commander's intent statement** (see Figure III-4) articulates both the end state and purpose of the operation and helps to focus the staff throughout the rest of the estimate process. It may also address when the commander is willing to accept risk in the operation.

(7) The **end state** defines the commander's criteria for mission success. By articulating the air component's purpose, the JFACC provides overarching vision of how the conditions at the end state support the joint campaign and follow-on operations (see Figure III-4).

## **b. Phase 2. Situation and COA Development**

(1) This phase begins by refining the initial IPB and analyzing COGs. IPB (see Figure III-5 for sample topic areas) is essential in developing and analyzing both adversary and friendly COGs. Adversary COAs assist friendly COA development in this phase and allow COA analysis in the next phase.

## SAMPLE JOINT FORCE AIR COMPONENT COMMANDER MISSION STATEMENT

- When directed, JFACC-West conducts joint air operations to protect the deployment of the joint force and to deter aggression.
- Should deterrence fail, JFACC-West, on order, gains air superiority in order to enable coalition military operations within the operational area. Concurrently, JFACC-West supports JFLCC-West in order to prevent seizure of NV Pacifica mineral fields.
- On order, JFACC-West shapes the battlespace for a joint counteroffensive, supports JFMCC-West for maritime superiority and JFLCC-West for ground offensive operations, degrades conventional military power, and destroys weapons of mass destruction long/medium delivery capability in order to defeat the military forces in the region.

JFACC: Joint force air component commander  
JFLCC: Joint force land component commander

JFMCC: Joint force maritime component commander

Figure III-3. Sample Joint Force Air Component Commander Mission Statement

## SAMPLE JOINT FORCE AIR COMPONENT COMMANDER INTENT

- **Purpose.** The purpose of the joint air operations is to deter aggression. Should deterrence fail, I will gain and maintain air superiority, conduct joint offensive air operations, and support the JFLCC counteroffensive in order to restore the territorial integrity and ensure the establishment of a legitimate government in a stable Pacific region.
- **Method.** Gaining air superiority in the operational area will permit effective close air support and interdiction operations. While defending coalition surface forces, joint air forces will conduct precise counteroffensive efforts throughout the AOR.
- **End-state.** At the end of this operation:
  - Adversary military forces will be capable of limited defensive operations, have ceased combat operations, and complied with coalition war termination conditions.
  - Adversary will retain no weapons of mass destruction capability
  - Allied territorial integrity will be restored
  - JFACC-West will have passed air traffic control to local authorities
  - JFACC-West will have been disestablished

AOR: Area of responsibility  
JFACC: Joint force air component commander

JFLCC: Joint force land component commander

Figure III-4. Sample Joint Force Air Component Commander Intent

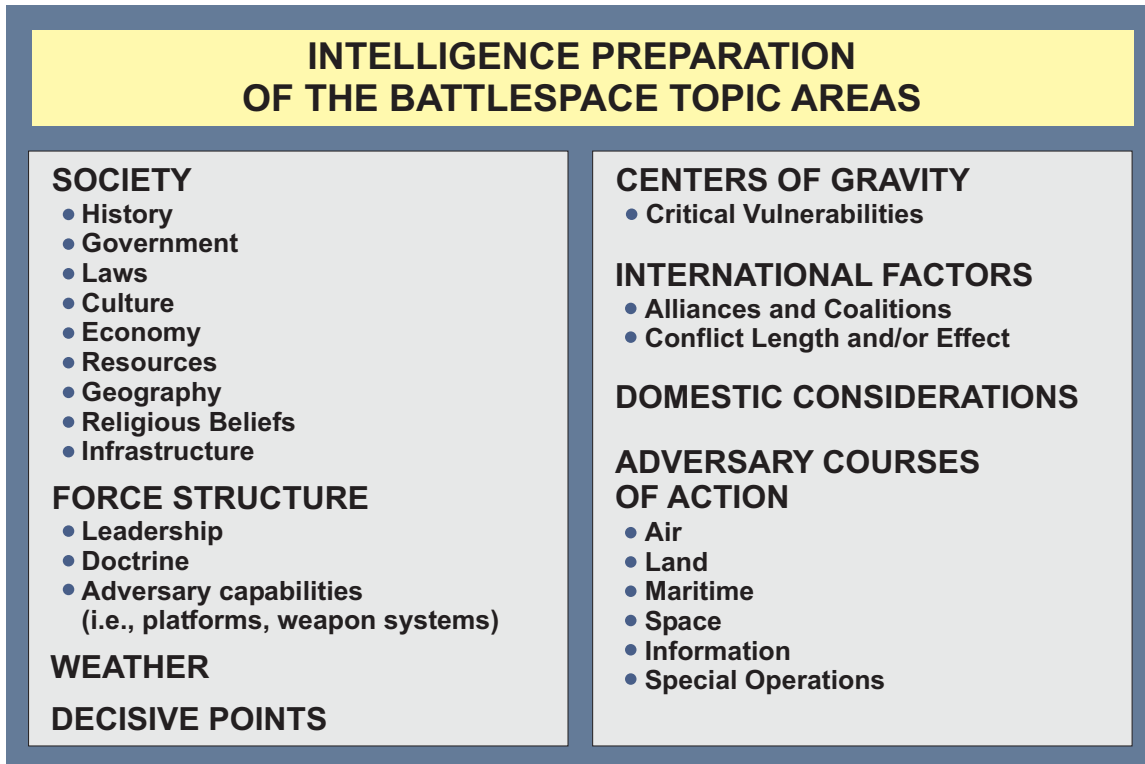


Figure III-5. Intelligence Preparation of the Battlespace Topic Areas

(2) **Identifying COGs.** COGs are defined as those characteristics, capabilities, or sources of power from which a military force derives its freedom of action, physical strength, or will to fight. A COG might have multiple, interrelated target systems that in turn are comprised of multiple targets that are vulnerable to lethal and nonlethal weapons. Strategic and operational COGs for both friend and adversary are identified during the mission analysis phase of the Joint Air Estimate Process. This should be a parallel and collaborative effort between the JFC's staff and the component commander's staffs. This effort should include both operations and intelligence personnel. One way of analyzing COGs for joint air operations is using a construct of: COG — Critical Capabilities — Critical Requirements — Critical Vulnerabilities. One way to categorize COGs can be as moral/political/religious and/or physical.

(a) Moral and political COGs might include: leaders, such as Napoleon, Churchill, or Patton; or public/popular/national support, such as American public opinion during WWII or the support of the Palestinians by Muslims in the Middle East. Moral and political COGs are a source of power by virtue of their ability to influence decisions and actions.

(b) Physical COGs might include: armed forces; national industrial/economic infrastructure, such as American industrial complexes during WWII; and large national populations, such as the Soviet Union possessed in WWII. Armies, navies, and air fleets might be COGs at the strategic levels. Physical COGs at the strategic level can include direct sources and/or centers of military strength, as well as principal indirect sources of that strength to include economic/industrial power stemming from large national populations. Physical COGs might be based on forces, equipment, or capabilities.

(3) The JFACC and staff prioritize the identified **adversary and friendly** critical vulnerabilities based on the critical vulnerability's impact on achieving the objective in the shortest possible time and with the fewest resources. The prioritized list of **adversary** critical vulnerabilities are then developed into specific targets and incorporated into the various COAs. The prioritized list of **friendly** critical vulnerabilities is developed into a critical asset list and incorporated into the AADP.

### BATTLE OF BRITAIN

The Royal Air Force' Fighter Command in the Battle of Britain during World War II was a center of gravity (COG) for the British. Fighter command required the critical capability to meet the Luftwaffe in a timely manner, before effective attacks could begin. In order to exercise this capability, the Royal Air Force (RAF) required advance warning regarding the timing, strength, and location of Luftwaffe attacks; a critical requirement. Advance warning helped turn the tide for an outnumbered and beleaguered RAF Fighter Command. The radar system's fragility and vulnerability made it a critical vulnerability. However, the Luftwaffe only made weak attacks against the system, because it did not realize the system's importance to Britain's air defenses; an example of poor intelligence preparation of the battlespace. British radar was a vital component of a critical requirement and its vulnerability to Luftwaffe attack made it a critical vulnerability. It is less precise to say that Fighter Command, the COG, was vulnerable, or to call Fighter Command itself a critical vulnerability. It is more precise to say that the radar system's vulnerability, if fully exploited by the Luftwaffe, could have made Fighter Command's pilots and machines much less effective. RAF radar was a vital component of a crucial requirement supporting one of Fighter Command's critical capabilities. Other components included ULTRA and forward air observers.

SOURCE: VARIOUS SOURCES

(4) **COA Development.** COA development is based on situation analysis and a creative determination of how the mission will be accomplished. COAs will be broad or detailed depending on available planning time and JFACC's guidance. Each COA developed should be significantly different. The JFACC will identify the number of COAs to develop.

(a) **A COA represents a potential plan the JFACC could implement to accomplish the assigned mission.** All COAs must meet the JFACC's intent and accomplish the mission. The JFACC's staff must assess each COA to estimate its success against all possible adversary COAs. When time is limited, the JFACC must determine how many COAs the staff will develop and which adversary COA to address. A complete COA must consider, at a minimum:

1. The JFACC's mission.
2. Desired end states.

3. JFACC's intent (purpose and vision of military end state).
4. Commander's Critical Information Requirements.
5. Theater C2 structure.
6. Essential tasks.
7. Available logistic support.
8. Available forces.
9. Available support from agencies.

(b) COAs should address who, what, when, where, how and why joint air operations will be conducted and include the following specifics:

1. Operational and tactical objectives, and their supporting tactical tasks, in the order of accomplishment.
2. Forces required and the force providers.
3. Force projection concept.
4. Employment concept.
5. Sustainment concept.

(c) The speed, range, and flexibility of air assets are their greatest advantages, and their employment location and purpose may change in minutes. Air planners deal with objective sequencing and prioritization, operational phasing, employment mechanisms, and weight of effort. In some cases, there may be flexibility in how to attain the JFACC objectives. For example, an objective may be to "destroy WMD capability;" but an alternate objective may be "destroy WMD delivery means." In addition, COAs may vary by the phase in which an objective is achieved or the degree to which an objective is achieved in each phase.

(5) Air COAs may be presented in several ways. They may be presented in text and discuss the priority and sequencing of objectives. Air COAs may also be graphic — displaying weights of effort, phases, decision points, and risk. Any quantitative estimates presented should clearly indicate common units of measure, such as ordnance weight delivered, in order to make valid comparisons between COAs. For example, a sortie is not a constant value for analysis — one F/A-18 sortie does not equate to one B-2 sortie. Air COAs should avoid numerical presentation. Ultimately, the JFACC will direct the appropriate style and content of the COA.



(6) The first step in COA development is to determine the objectives that will accomplish the JFACC's mission and support the JFC's objectives. The framework of operational objectives, tactical objectives, and tactical tasks provides a clear linkage of overall strategy to task (see Figure III-6). While the JFC normally provides operational objectives to the JFACC, they may also emerge through mission analysis or COA development. An objective should be clearly defined, decisive, and state an attainable goal. JFACC support to other components should also be expressed in terms of objectives. The resulting objective can then be prioritized with other JFACC objectives in accordance with the JFC's CONOPS. **Supporting objectives should describe what aspect of the adversary's capability the JFC or other component wants affected.** For example, the JFLCC's attack may require disrupting the adversary's operational reserve. Supporting JFACC objectives could be expressed as: "Render adversary's operational reserve unable to conduct counterattacks on JFLCC forces" or "Destroy adversary's operational reserve's offensive capability." Success indicators support operational objectives, providing broad, qualitative guidance for operational assessment. In addition to success indicators, specific measures of effectiveness (MOEs) may also clarify the given operational objective. Clearly defined objectives prevent confusion over what the force is trying to accomplish and reduce the risk of mission failure. Quantifiable objectives ensure the JFACC knows when the desired end has been achieved.

(7) Operational objectives are supported by tactical objectives that are in turn supported by tactical tasks. **Once achieved, tactical objectives should, in aggregate, achieve the operational objective.** An operational objective is normally supported by more than one tactical objective. Each tactical objective should include a MOE that quantifies the objective statement. MOEs measure the result joint air operations are having on the adversary's capability, allowing

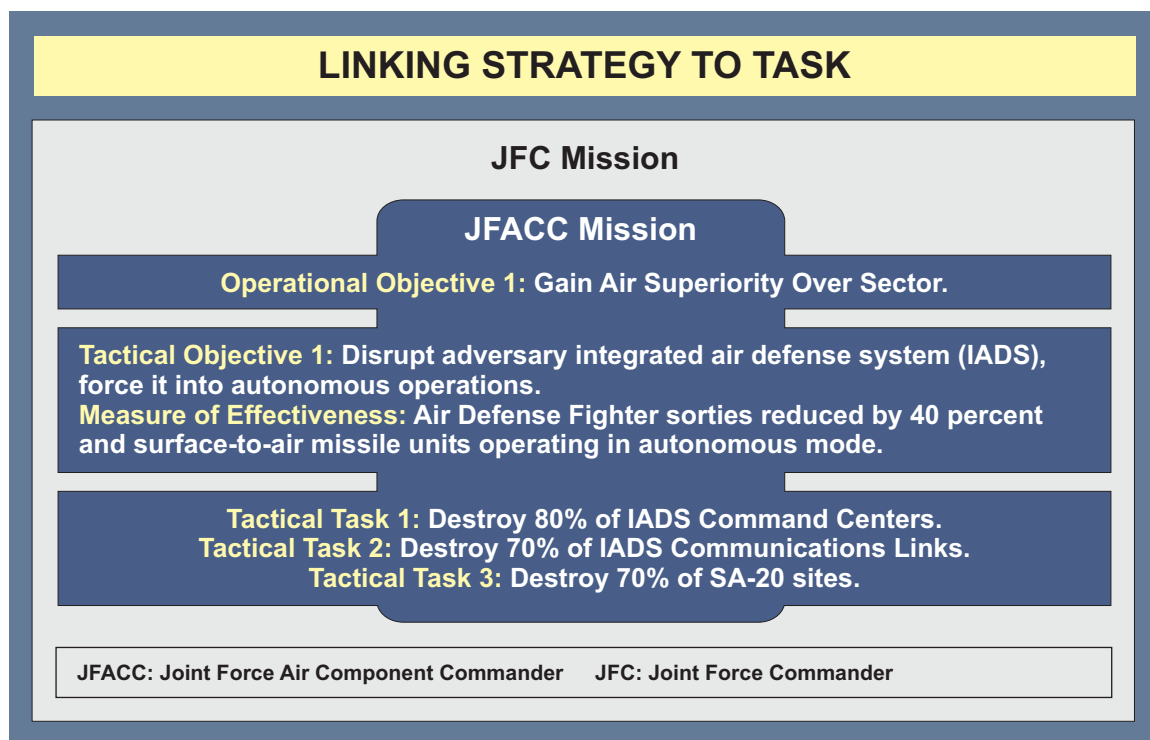


Figure III-6. Linking Strategy to Task



the JFACC to gauge success toward achieving the JFACC's objectives. Analysis of adversary critical vulnerabilities must include a determination of the level of degradation at which the adversary's capabilities are affected. MOEs should be based on the adversary's reaction to joint air operations and not just on the success of individual air missions. Tactical tasks are actions undertaken against specified target types, using lethal and nonlethal weapons to achieve tactical objectives. They are normally written with a clearly defined action verb (destroy, divert, etc.), and the tasks include the specific types of targets that are feasible, acceptable, and most likely to achieve the objectives (e.g., SA-10 sites, division command centers, etc.). When articulated in this manner, tactical tasks should not require a MOE to clarify the task statement. This prevents planners from focusing too heavily on achieving the tactical task when it is the objective that is most important. MOEs also help focus component operational assessment efforts and identify ISR requirements.

(8) Once planners define the objectives and supporting tasks, they further refine potential air COAs based on the objective priority, sequence, phasing, weight of effort, and matched resources. This is one method to differentiate COAs. Other methods include varying by time available, anticipated adversary activities, friendly forces available, and higher-level guidance. For air planning, a single COA may be developed with several branches and sequels that react to possible adversary activities.

(9) **Planners determine the validity of each COA based on suitability, feasibility, acceptability, distinguishability, and completeness.** A COA is suitable if it accomplishes the mission; feasible if it may be accomplished with resources available; acceptable if it is within given policy and guidance and worth the risks; distinguishable if it is significantly different from other COAs; and, complete if it answers what, where, when, why, and how.

(10) **A good COA positions the force for future operations** and provides flexibility to meet unforeseen events during execution. It also provides the maximum latitude for initiative by subordinates. The JFC's order normally provides the what, when, and why for the force as a whole.

(11) The relationship between resources and COA development is critical. **COA development must take into account resource constraints of the joint force at large** (see Figure III-7). Competing requirements for limited airlift will often result in deployment orders less than ideal for all components but optimal for the joint force at large. The JFC must ensure the time-phased force and deployment data (TPFDD) reflects the priorities and requirements of the joint force. Planners must ensure the COA developed adheres to deployment considerations across the force and does not assume away potential mobility pitfalls.

(12) During COA development, the **JFACC staff helps the commander identify risk areas that require attention.** These will vary based on the specific mission and situation and may be divided into two broad areas: combat support and operational. Combat support considerations include TPFDD planning that will critically affect the joint force strategy and execution. Also considered with the TPFDD are basing, access, logistic support available, and defenses required (see Figure III-8). However, since TPFDD execution, basing, and logistic

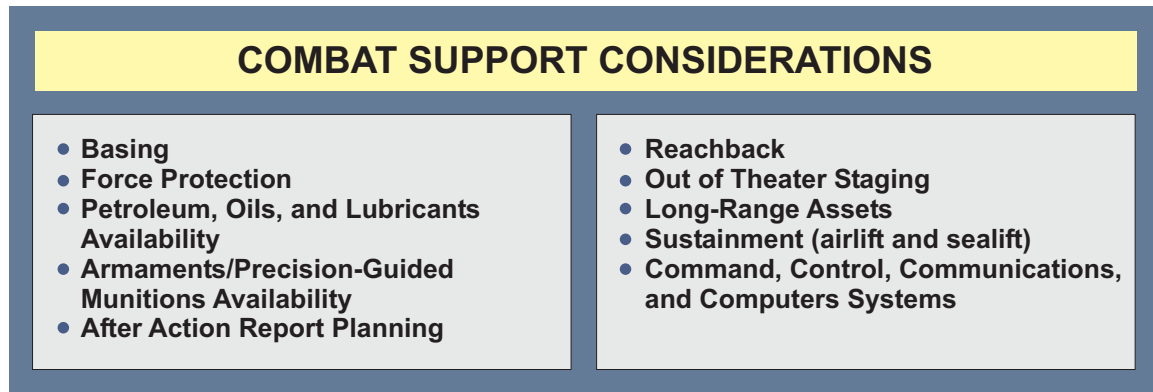


Figure III-7. Combat Support Considerations



Figure III-8. Risk Analysis: Combat Support Factors

support are the responsibility of the JFC and Service components, the JFACC's planning effort needs to focus on the limitations and constraints imposed.

(13) Decisions related to operational assumptions will drive a change in how the JFACC operates. These changes may range from JAOC process changes to weaponizing and targeting methods. **One of the first considerations for the JFACC is usually air superiority.** The JFACC is responsible for considering the risk related to air defense planning when designated as the AADC. The commander's operational assumptions will determine the resources committed, force posturing, and structure of the air and missile defense plan.

(14) The JFC's assumptions will also affect the operational assumptions made by the joint force air planners. The joint force structure and campaign or operation plans directly influence the JFACC's risk estimate and guidance.

(15) Minimizing the risk of fratricide and collateral damage are operational factors in risk analysis (see Figure III-9). **The commander must balance the potential for fratricide and collateral damage with mission success.** When the risk becomes unacceptable, the commander should consider changes in operational employment.

(16) The result of COA development is a minimum of two valid COAs. If multiple COAs are developed, they may represent viable branches or sequels.

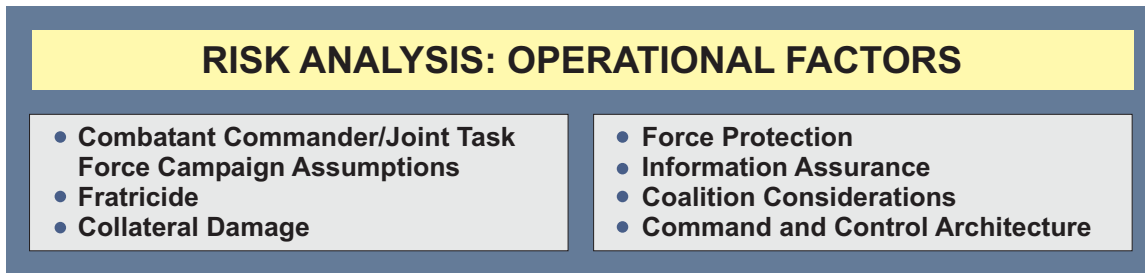


Figure III-9. Risk Analysis: Operational Factors

### c. Phase 3. COA Analysis

(1) **COA analysis involves wargaming each COA against the adversary's most likely and most dangerous COAs.** Wargaming is a recorded "what if" session of actions and reactions designed to visualize the flow of the battle and evaluate each friendly COA. Wargaming is a valuable step in the estimate process because it stimulates ideas and provides insights that might not otherwise be discovered. It also provides initial detailed planning while also determining the strengths and weaknesses of each COA. This may alter or create a new COA based on unforeseen critical events, tasks, or problems identified. Wargaming is often a sequential process, but planning groups adjust their wargame style based on JFACC guidance, time available, situation, and staff dynamics. Wargaming begins by assembling all the tools and information planners require and establishing the general rules to follow. Recording the activity is vital and directly contributes toward identifying the advantages and disadvantages of a COA and providing sufficient detail for future JAOP development. Planners may use a synchronization matrix to detail the results of wargaming.

(2) Time permitting, the staff should:

(a) Consider all facts and assumptions of the estimate, and their possible effect on the action.

(b) Consider active and passive measures to decrease the impact of adversary COA.

(c) Consider conflict termination issues. Think through own action, adversary reaction, and counteraction.

(3) COA analysis concludes when planners have refined each plan in detail and identified the advantages and disadvantages of each COA. Automation in the planning process and joint analysis centers may provide additional modeling support to wargaming, increasing the accuracy and speed of COA analysis.

### d. Phase 4. COA Comparison

(1) Comparing the COAs against predetermined criteria provides an analytical method to identify the best employment options for air forces/capabilities. This begins with the JFACC

staff comparing the proposed COAs and identifying the strengths, weaknesses, advantages and disadvantages of each. This is often followed by analytical comparison via a decision matrix. The matrix technique identifies and weights the criteria for comparison. Criteria may include principles of war, perceived risk, and logistic support. Each COA is then rated against the others based upon the established criteria. **Staffs must guard against pre-selecting a COA and adjusting either the weights or rating in favor of it.** Such actions may invalidate the decision matrix's overall recommendation (see Figure III-10).

(2) Another technique for COA comparison involves developing an objective-risk timeline. Operational objectives or significant events are plotted against a timeline that identifies when certain objectives or actions will occur. Risk for each COA based on the timeline is identified. The graphical presentations of COA objective-risk timeline form the basis for the staff's recommendation and presentation to the JFACC.

e. **Phase 5. COA Selection.** COA selection begins with a staff recommendation and ends with a JFACC-approved COA and guidance. The staff presents their recommended COA usually in the form of a briefing. This briefing includes a summary of the estimate process that led to the recommended COA. Based on the amount of JFACC involvement throughout the planning process and the degree of parallel planning the commander accomplishes, **COA selection will vary from choosing among alternatives to direct approval of the staff-recommended COA.** Once the COA is identified, adjusted (if required) and approved by the JFC, the estimate products contribute directly to JAOP preparation.

f. **Phase 6: JAOP Development**

(1) JAOP development is a collaborative effort of the JFACC staff, the JFC staff, and the component staffs. **The JAOP details how the joint air effort will support the JFC's overall OPLAN.** The JAOP accomplishes the following:

COURSE OF ACTION COMPARISON				
Criterion	Weight	COA 1	COA 2	Value Scale is 1 to 5 (5 is best)
Flexibility	5	3	5	
Infrastructure Damage	2	5	3	
Attrition	3	5	4	
Simplicity	1	5	4	
Initiative	4	3	5	
<b>Weighted Total</b>		<b>57</b>	<b>67</b>	
<i>Higher values indicate a more favorable staff recommendation</i>				
COA: Course of Action				

Figure III-10. Course of Action Comparison

- (a) **Integrates the efforts of joint air capabilities and forces.**
- (b) **Identifies objectives and tasks.**
- (c) **Identifies measures or indicators of success used to determine whether air operations are meeting assigned objectives.**
- (d) **Accounts for current and potential adversary offensive and defensive COAs.**
- (e) **Synchronizes the phasing of air operations with the JFC's plan.**

1. The first phase normally will involve counterair operations (to include air and missile threats) to attain and maintain the required degree of air superiority.

2. Offensive air operations may begin in conjunction with the initial counterair operations or be delayed until the requisite air superiority is achieved to reduce losses and attain greater freedom of action.

(f) **Indicates what air capabilities and forces are required** to achieve joint air objectives.

1. Once Service components provide information, total force structure is determined, force availability, deployment timing, basing availability, and sustainment requirements are matched with logistic and planning requirements.

2. With this information, the JFACC's ability to accomplish the assigned mission is reevaluated and adjusted as necessary.

3. This evaluation includes a comprehensive sustainability assessment.

(g) **Develops specific procedures for allocating, tasking, exercising, and transitioning C2 of joint air capabilities and forces.**

(2) **In addition to building the plan for the employment of air forces, the JAOP should include a plan to turn over from initial to sustainment forces as appropriate.** Additionally, the JAOP should also include considerations for conflict termination, redeployment of forces, and procedures to capture and report lessons learned. Incomplete planning for conflict termination can result in the waste of valuable resources or even a return to hostilities. **The list of considerations for conflict termination is specific to each situation.**

#### **4. Air Mobility Considerations**

Air mobility missions are integral to the success of joint operations. **Airlift is critical for deployment, redeployment, and sustainment, while aerial refueling is critical to enable**

**and sustain intense air operations.** AE is the most expeditious method of patient movement. Commander, USTRANSCOM normally retains operational control (OPCON) of intertheater air mobility assets due to their global mission and nature. A support relationship is established between combatant commanders. Intratheater airlift and theater refueling assets may be attached to a JTF, with OPCON normally delegated down to the appropriate Service component commander. Integrating air mobility planning into the JAOP and monitoring mission execution is normally the responsibility of a DIRMOBFOR, supported by a team of mobility specialists in the JAOC.

*For more detailed information see JP 3-17, Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations, and JP 4-02.2, Joint Tactics, Techniques, and Procedures for Patient Movement in Joint Operations.*

### 5. Joint Air Operations Targeting Cycle

a. **Targeting is the “process of selecting and prioritizing targets and matching the appropriate response to them, taking account of operational requirements and capabilities.”** Targeting is both a joint- and component-level command function that determines desired effects necessary to accomplish JFC objectives; selects targets that achieve those effects; and selects or tasks the means to best engage those targets. **Targeting is complicated by the requirement to deconflict duplicative targeting by different forces or different echelons within the same force and to integrate the attack of those targets with other components of the joint force.** An effective and efficient target development process coupled with an air tasking cycle is essential for the JFACC to plan and execute joint air operations. This joint targeting process should integrate capabilities and efforts of national agencies, combatant commands, subordinate joint force, and component commands, all of which possess varying capabilities and different requirements. The process is the same in war and MOOTW.

b. **There are six phases to the joint targeting cycle: commander’s objectives, guidance and intent; target development, validation, nomination and prioritization; capabilities analysis; commander’s decision and force assignment; mission planning and force execution; and CA.** The **targeting cycle** begins with objectives, guidance, and intent issued by the JFC and culminates with CA. At the joint force level, the J-3 is normally the focal point for synchronizing and integrating joint operations. The joint fires element, an optional element of the J-3 staff, may provide recommendations to the J-3 to accomplish fires planning and coordination. It is important to note that the targeting cycle is not time dependent. Its length can vary with the situation (for example, target development may last for hours or days; and CA may take days to accomplish). While referred to as a cycle, individual phases can occur in parallel as well as sequentially.

*See also JP 2-01.1, Joint Tactics, Techniques, and Procedures for Intelligence Support to Targeting, JP 3-60, Doctrine for Joint Targeting, and JP 3-09, Doctrine for Joint Fire Support.*

c. **Targeting mechanisms should exist at multiple levels.** The President, Secretary of Defense, or headquarters senior to JFCs may provide guidance, priorities, and targeting support



to JFCs. Joint force components identify requirements, nominate targets that are outside their areas of operations or exceed the capabilities of organic and supporting assets, and conduct execution planning. After the JFC makes the targeting and air apportionment decisions, components plan and execute assigned missions.

d. **Typically, the JFC organizes a joint targeting coordination board (JTCB).** If the JFC so designates, a JTCB may be an integrating center to accomplish the broad targeting oversight functions or a JFC-level review mechanism. In either case, it needs to be a joint activity comprised of representatives from the staff, all components, and if required, their subordinate units.

(1) **The JFC defines the role of the JTCB.** The JTCB provides a forum in which all components can articulate strategies and priorities for future operations to ensure that they are synchronized and integrated. **The JTCB normally facilitates and coordinates the targeting activities of the components to ensure that the JFC's priorities are met.** The JTCB and/or JFC typically address specific target issues not previously resolved. The JTCB normally refines the draft JIPTL for approval by the JFC.

(2) **The JTCB may assist the JFC in developing or revising the targeting guidance and/or priorities. The JTCB maintains a macro-level view of the operational area** and ensures targeting nominations are consistent with the JFC's intent and CONOPS.

e. The JFC will normally **delegate the authority to conduct execution planning, coordination, and deconfliction associated with joint air targeting to the JFACC and will ensure that this process is a joint effort.** The JFACC must possess a sufficient C2 infrastructure, adequate facilities, and ready availability of joint planning expertise. A targeting mechanism tasked with detailed planning, weaponeering, and execution, is also required to facilitate the process.

f. The JFACC develops a JAOP that accomplishes the objectives directed by the JFC. **Synchronization, integration, deconfliction, allocation of air capabilities/forces, and matching appropriate weapons against target vulnerabilities are essential targeting functions for the JFACC.** Other components' targeting requirements which support their assigned missions are provided via the target information report. Therefore, **targets scheduled for attack by component air capabilities/forces should be included in the ATO for deconfliction and coordination.** All component commanders within the joint force should have a basic understanding of each component's mission and general CONOPS/scheme of maneuver. All components should provide the JFACC a description of their air plan to minimize the risk of fratricide, assure deconfliction, avoid duplication of effort, and to provide visibility to all friendly forces. This basic understanding allows for coordination and deconfliction of targeting efforts between components and within the JFC staff and agencies (see Figure III-11).

## JOINT FORCE AIR COMPONENT COMMANDER TARGETING RESPONSIBILITIES

- Plan, coordinate, allocate, task, and direct the joint air effort in accordance with the joint force commander's (JFC's) guidance and joint force objectives.
- Develop a joint air operations plan derived from the JFC's broader operation or campaign objectives, and guidance regarding the roles, missions, tasks, and responsibilities of joint air capabilities/forces.
- After consulting with other component commanders, recommend apportionment of the joint air effort by priority that should be devoted to various air operations for a given period of time.
- Translate air apportionment into allocation and develop targeting guidance into the air tasking order (which may include specific aim points).
- Direct and ensure deconfliction of joint air operations.
- Synchronize joint air operations.
- Coordinate with the appropriate components' agencies/liaison elements for synchronization and deconfliction with land and naval operations.
- Coordinate with the appropriate components' agencies/liaison elements for tasking of the air capabilities/forces made available.
- Coordinate with the joint force special operations component commander's special operations liaison element for integration, synchronization, and deconfliction with special operations.
- Monitor execution and redirect joint air operations as required.
- Compile component target requirements and prioritize targets, based on JFC guidance.
- Accomplish combat assessment.

Figure III-11. Joint Force Air Component Commander Targeting Responsibilities

### 6. The Joint Guidance, Apportionment, and Targeting Team

a. The JFACC may organize a joint guidance, apportionment, and targeting (JGAT) team. **The JGAT team may be a separate section where component representatives provide input to the targeting process, or it may be a meeting that convenes on a periodic basis (normally daily).** The JGAT team responsibilities are varied but key to the targeting process. The JGAT team links targets to be attacked by JFACC aviation forces/capabilities to commanders' (JFC and component) guidance, deconflicts and coordinates target nominations based on estimates of how many targets can be attacked, makes recommendations for the air apportionment, and provides other targeting support requiring component input at the JFACC level. If the JFC delegates joint targeting coordination authority to the JFACC, the JGAT team also receives all target nominations and prioritizes them into the draft JIPTL. Common organizational guidelines of the JGAT team include the following.

- (1) Chaired by the deputy JFACC or designated representative.



(2) Senior component liaison officers (LNOs) and key JFACC staff members comprise the JGAT team.

(3) The Combat Plans Division (CPD) provides the staff support to the JGAT team during the air-tasking planning and execution process.

b. **Draft JIPTL Construction.** The draft JIPTL is formed from a prioritized listing of targets based on JFC and component target priorities. Members consider the estimated available air forces/capabilities and their ability to affect the targets on the list. A draft JIPTL is normally established. The draft JIPTL should reflect which targets would most likely be attacked (barring technical problems with aircraft, weather, retasking for higher priority targets, or other operational circumstances) with the projected apportionment of air assets assigned or made available to the JFACC. The priorities are important since low priority targets may not be tasked in that day's targeting cycle. Component LNOs should be ready to justify and/or prioritize target nominations among all the priorities of the joint operation. **The JFACC may also recommend to the JFC that other component assets be used against targets on the draft JIPTL.** Only the JFC can approve this use of other components assets/forces.

c. **The Air Apportionment Recommendation.** The JGAT team formulates air apportionment recommendations that the JFACC submits to the JFC for upcoming targeting cycles. The JGAT team provides a useful forum for component input into the air apportionment recommendation process. With the air capabilities required to attack targets on the draft JIPTL as a benchmark, the JGAT can recommend the level of air effort to be applied to counterair, close air support (CAS), air interdiction, strategic attack, and other air missions. The end result is the draft JIPTL and air apportionment recommendation. These products are normally forwarded to the JTCB for coordination and final approval by the JFC.

## 7. The Joint Air Tasking Cycle

a. A joint air tasking cycle is used to provide for the efficient and effective employment of the joint air capabilities/forces made available. The cycle provides a repetitive process for the planning, coordination, allocation, and tasking of joint air missions/sorties within the guidance of the JFC. **The cycle accommodates changing tactical situations or JFC guidance as well as requests for support from other component commanders.** The joint air tasking cycle is an analytical, systematic approach that **focuses targeting efforts on supporting operational requirements.** Much of the day-to-day joint air tasking cycle is conducted through an interrelated series of information exchanges and active involvement in plan development, target development, and air execution (through designated component LNOs and/or messages), which provide a means of requesting and scheduling joint air missions. **Note: A timely ATO is critical** — other joint force components conduct their planning and operations based on a prompt, executable ATO and are dependent on its information.

b. **The joint air tasking cycle begins with the JFC's objectives, guidance during JFC and component coordination, and culminates with CA of previous actions.** The ATO articulates the tasking for joint air operation for a specific time period, normally 24 hours. Detailed

planning normally begins 48 hours in advance of the execution period to enable the integration of all component requirements. The net result of this planning effort is that **there are usually three ATOs in various stages of progress at any time.**

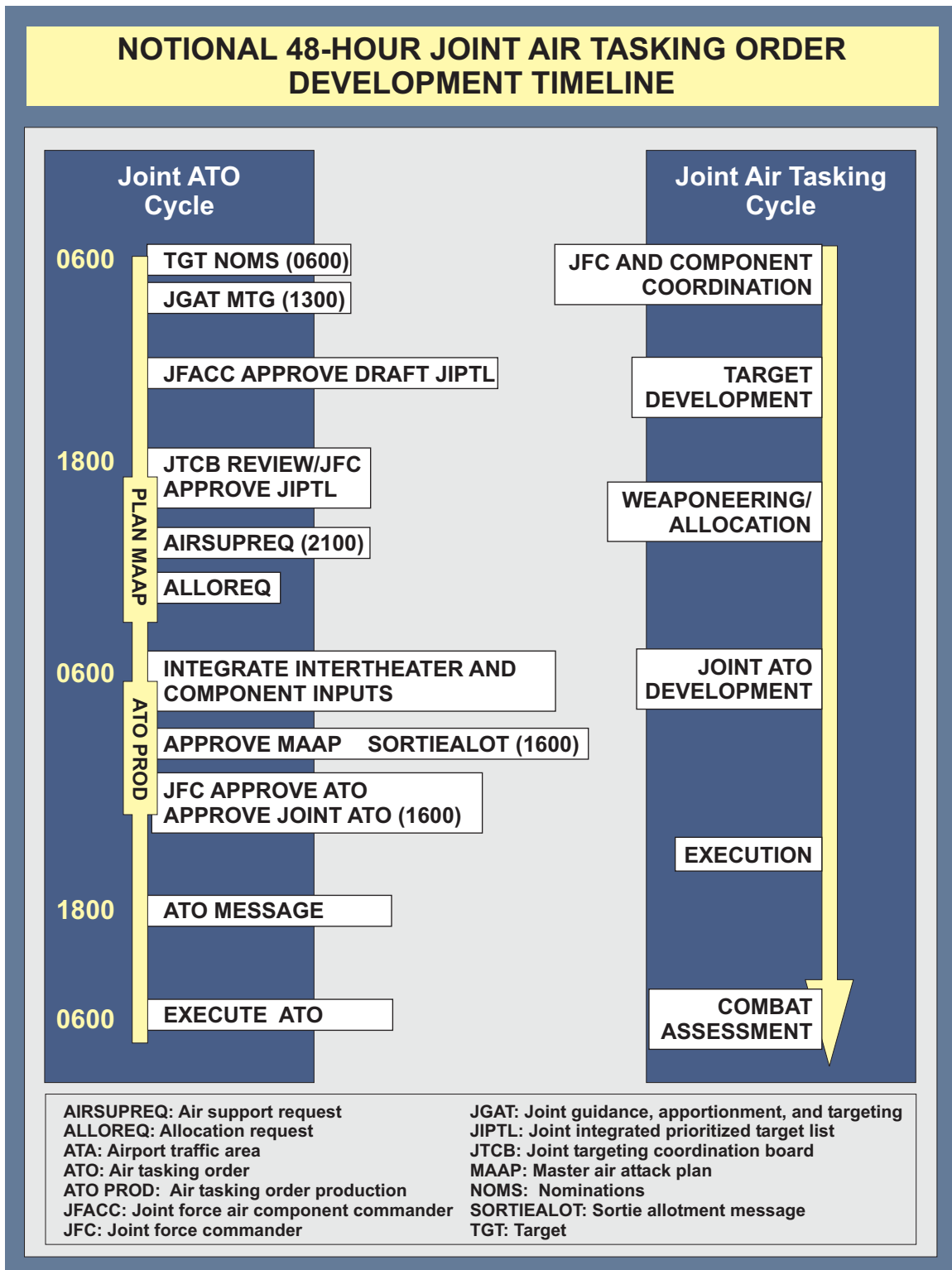
- (1) ATO currently being executed.
- (2) ATO being developed/produced.
- (3) ATO in planning.

c. The full ATO cycle from JFC guidance to the start of ATO execution is dependent on the JFC's procedures. A 72-hour ATO cycle, starting from JFC guidance and ending after a 24-hour execution period is fairly standard. The precise timeframes for the joint air tasking cycle must be specified in the JFC's OPLANs or the JFACC's JAOP. Long-range combat air assets positioned outside the theater but operating in the joint operations area (JOA), may be airborne before ATO publication/execution. These assets require the most current (draft) ATO information and updates as required. Intertheater air mobility missions may not necessarily operate within an established ATO cycle. The CPD should carefully consider how these and intratheater air mobility missions are integrated into the ATO.

d. The ATO matches specific targets compiled by the JFACC with the capabilities/forces made available to the JFACC for the given ATO day (see Figure III-12). Other component air missions that appear on the ATO are not under the control of the JFACC, but their presence on the ATO provides visibility to assist overall coordination and deconfliction.

### 8. Air Tasking Order Phases

**The ATO phases are interrelated to the air targeting cycle.** The approach is the same, a systematic process that matches available capabilities/forces with targets to achieve operational objectives. Unlike the targeting cycle, the air tasking cycle is time dependent. The air tasking cycle is built around finite time periods that are required to plan, prepare for, and conduct air operations. The number of ATO development phases may vary based on theater and contingency requirements. **Prior to the JFC and component commander's meeting, the JFACC meets with senior component liaisons and the JFACC staff to develop recommendations on air planning and air apportionment for future operations.** (The use of the term "meeting" is notional; other methods of information exchange could also be used.) This meeting may review JFC objectives and guidance; analyze results of joint force operations and consider changes to planned or ongoing joint air operations; review adversary capabilities and COAs, COGs, decisive points (DPs), critical vulnerabilities, and key targets; develop and discuss updates to the JIPTL to be vetted at the JGAT; and assess joint air capabilities for future operations to meet JFC objectives. The JFACC provides objectives and guidance to the staff for joint air operations to support the JFC's intent, recommends broad target categories that support the JFC's objectives, reviews joint force air capabilities/forces to achieve assigned tasks, refines requirements for capabilities/forces from other components, and after consulting with the other component



**Figure III-12. Notional 48-Hour Joint Air Tasking Order Development Timeline**

commanders or their representatives, formulates an air apportionment recommendation for presentation to the JFC. Examples of air apportionment categories include, but are not limited to, strategic attack, interdiction, counterair, maritime support, and CAS.

### a. Phase 1: JFC/Component Coordination

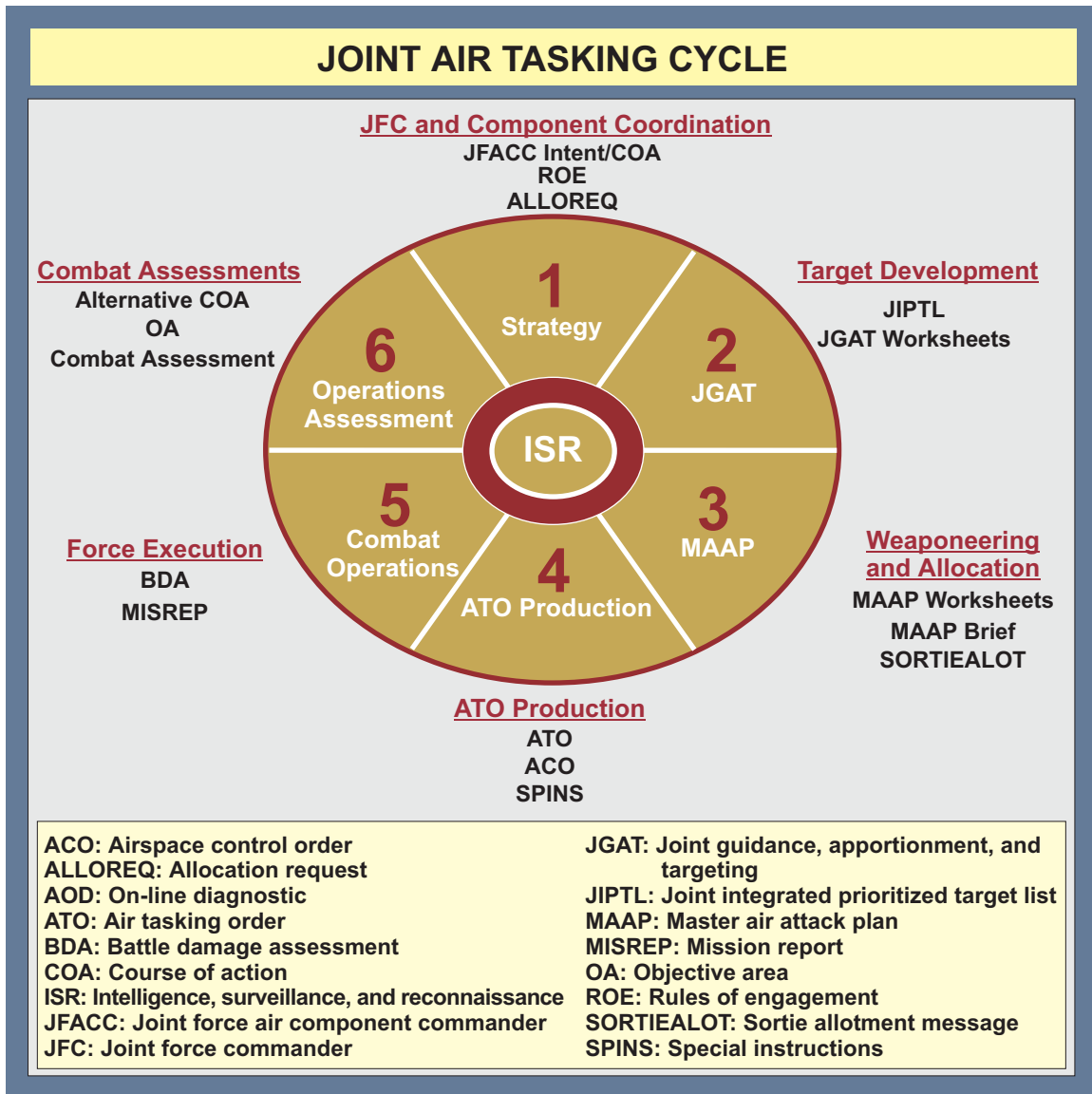
(1) The JFC consults often with component commanders to assess the results of the warfighting effort and to discuss the strategic direction and future OPLANs. This provides component commanders an opportunity to introduce recommendations, support requirements, and state their ability to support other components. The JFC provides broad guidance, objectives, and, most importantly, vision of what constitutes military success. The JFC also defines the intent of the operation or campaign and sets priorities. **The JFC's guidance and objectives will identify targeting priorities and will include the JFC's air apportionment decision.**

(2) **Air Apportionment.** Air apportionment allows the JFC to ensure the priority of the joint air effort is consistent with campaign or operation phases and objectives. Given the many functions that the joint air effort can perform, its operational area-wide application, and its ability to rapidly shift from one function to another, JFCs pay particular attention to its apportionment. **After consulting with other component commanders, the JFACC makes the air apportionment recommendation to the JFC. The methodology the JFACC uses to make the recommendation may include** priority or percentage of effort against assigned mission-type orders and/or categories significant for the campaign or operation such as the JFC's or JFACC's objectives. The JFC is the approval authority for the air apportionment recommendation.

b. **Phase 2: Target Development.** This is the point where the efforts of the targeting process relate **target development to tasking** and are processed with the assistance of the liaison elements, through a JGAT team (within combat plans). The JGAT team collates target nominations from the components. It screens all nominated targets to ensure they meet the JFC guidance and are relevant. It prioritizes the nominated targets based on the best potential achievement of the JFC guidance and the components' priorities and timing requirements. The product of this effort, when approved and signed by the JFACC, is the JIPTL.

### c. Phase 3: Weaponneering/Allocation

(1) During the capabilities analysis/allocation phase, **targeting personnel quantify the expected results of lethal and nonlethal weapons employment against prioritized targets to produce desired effects.** The JIPTL provides the basis for weaponneering assessment activities. All approved targets are weaponneered to include recommended aim points, weapons systems and munitions, fuzing, target identification and description, target attack objectives, probability of destruction, and collateral damage concerns. **The final prioritized targets developed during JGAT are then provided to a master air attack plan (MAAP) team. The MAAP teams allocate airpower by melding available capabilities with the JGAT recommendations. The resulting MAAP is the plan of employment that forms the foundation of the ATO.** The MAAP is normally a graphic depiction of capability required for a given period (see Figures III-13, III-14, and III-15). The MAAP is a key element of the concept of joint air operations. The development of the MAAP includes the review of JFC and JFACC guidance; component air plans and their support requests; updates to target requests; availability of capabilities/forces;



**Figure III-13. Joint Air Tasking Cycle**

target selection from the JIPTL; and aircraft allocation. Components may submit critical changes to target requests and asset availability during this final phase of ATO development.

(2) **Air Allocation.** Following the JFC air apportionment decision, **the JFACC translates that decision into total number of sorties by aircraft type available for each objective/task.** On the basis of the JFC's air apportionment decision, internal requirements, and air support request messages, each air capable component prepares an allocation request (ALLOREQ) message for transmission to the JFACC (normally not less than 36 hours prior to the start of the ATO day, this coincides with the beginning of the MAAP process). ALLOREQ messages report:

(a) Excess sorties not required by the air capable component and available for tasking by the JFACC.

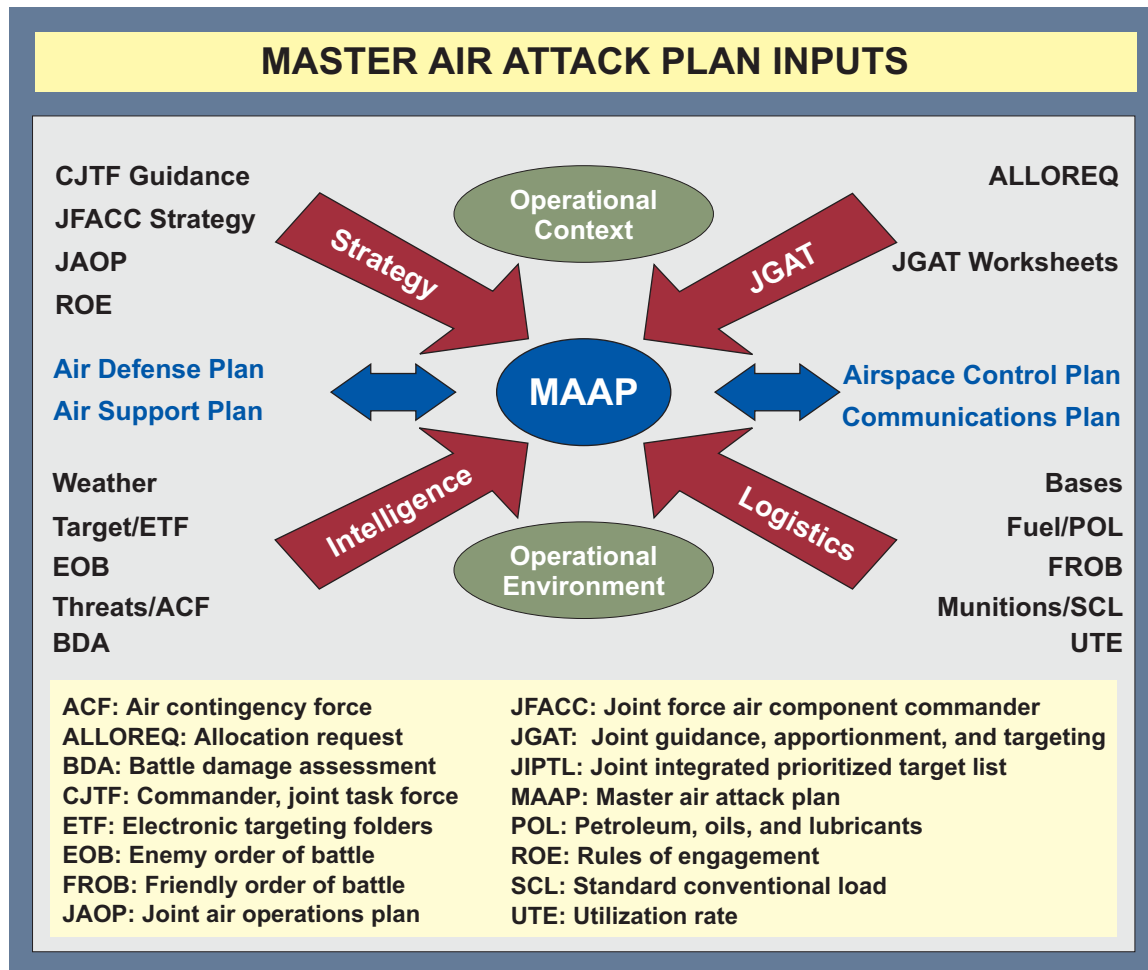


Figure III-14. Master Air Attack Plan Inputs

(b) Request for air support.

d. **Phase 4: ATO Production.** JFC and JFACC guidance, including the air operations directive, target worksheets, the MAAP, and component requirements are used to finalize the ATO/SPINS/ACO. **Airspace control and air defense instructions must be provided in sufficient detail to allow components to plan and execute all missions listed in the ATO.** These directions must enable combat operations without undue restrictions, balancing combat effectiveness with the safe, orderly, and expeditious use of airspace. Instructions must provide for quick coordination of task assignment or reassignment and must direct aircraft identification and engagement procedures and ROE that are appropriate to the nature of the threat. These instructions should also consider the volume of friendly air traffic, friendly air defense requirements, identification, friend or foe technology, weather, and adversary capabilities. Instructions are contained in SPINS and also in the ACO that are updated as frequently as required. The ATO, ACO, and SPINS provide operational and tactical direction at appropriate levels of detail. The level of detail should be very explicit when forces operate from different bases and multi-component and/or composite missions are tasked. By contrast, less detail is required when missions are tasked to a single component or base.



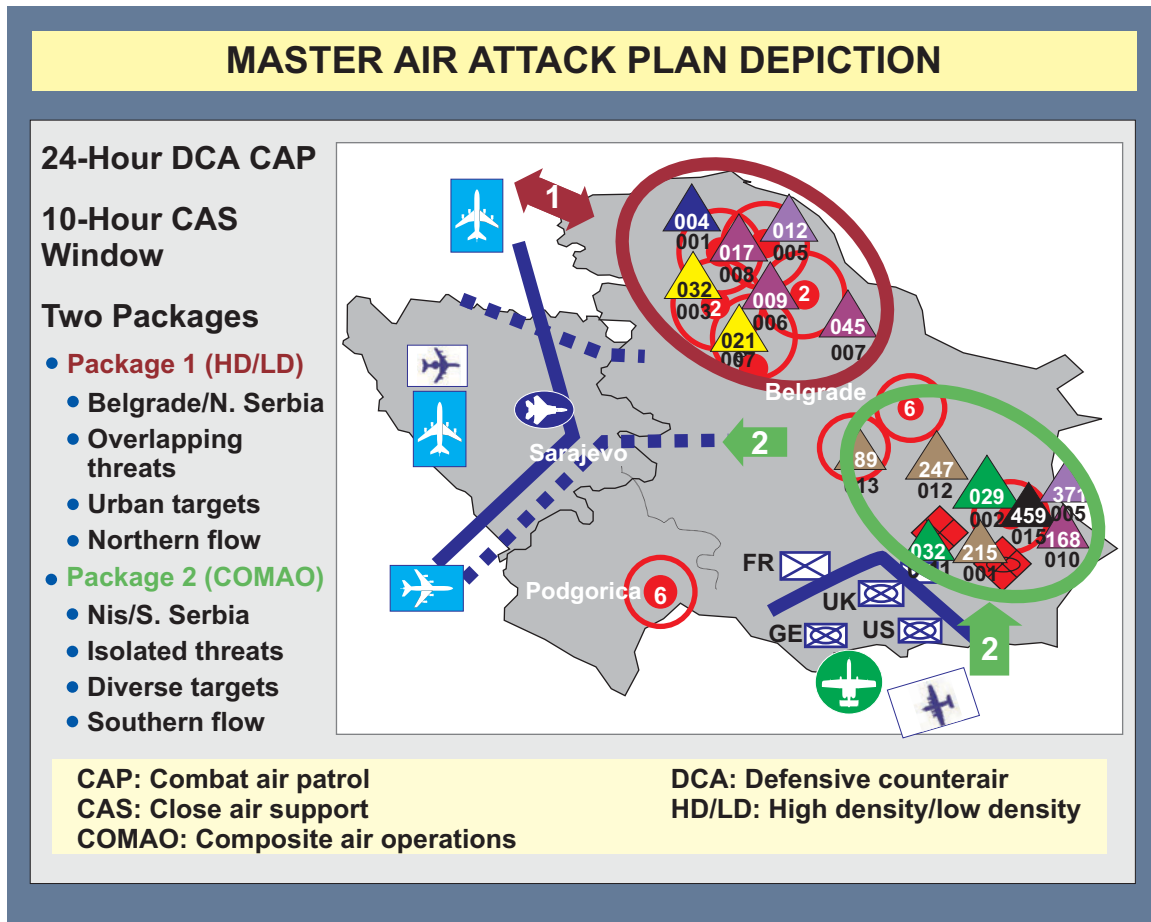


Figure III-15. Master Air Attack Plan Depiction

See JP 3-52, Doctrine for Joint Airspace Control in the Combat Zone, for further discussion.

e. **Phase 5: Force Execution.** The JFACC directs the execution of air capabilities/forces made available for joint air operations. Inherent in that is the authority to redirect joint air assets. The JFACC will coordinate with affected component commanders upon redirection of joint sorties previously allocated for support of component operations. **Aircraft or other capabilities/forces not apportioned for joint air operations, but included in the ATO for coordination purposes (e.g., other component air missions), will be redirected only with the approval of the respective component commander.**

(1) **The JAOC must be responsive to required changes during the execution of the ATO.** In-flight reports, the discovery of time-sensitive targets, and initial BDA may cause a redirecting of joint air capabilities/forces before launch or a redirection once airborne.

(2) During execution, **the JAOC is the central agency for revising the tasking of joint air capabilities/forces.** It is also charged with coordinating and deconflicting those changes with the appropriate control agencies or components.

(3) **Due to battlefield dynamics, the JFACC may be required to make changes to the planned joint air operations during execution.** The JFACC will coordinate with affected component commanders.

(4) **During execution, the JFACC is responsible for retargeting joint air operations assets to respond to moving targets or changing priorities.** Ground or airborne C2 platform mission commanders may be delegated the authority from the JFACC (under the same conditions outlined above) to redirect sorties/missions made available to higher priority targets as necessary. It is essential, however, that the JAOC be notified of all redirected missions.

**f. Phase 6: Combat Assessment. CA is performed at all levels of the joint force.**

(1) The JFC should establish a dynamic system to support CA throughout the joint force and to ensure that all components are making contributions to the overall joint force CA activity. Normally, the joint force J-3 is responsible for coordinating CA, assisted by the joint force intelligence directorate (J-2). CA evaluates the effectiveness of combat operations in achieving command objectives. Effective operation planning and execution require a continuing evaluation of the impact of joint force combat operations within each of the components and on the overall operation or campaign. **The JFACC continuously plans for and evaluates the results of joint air operations and provides assessments to the JFC for consolidation into the overall evaluation of the current campaign.**

(2) Within the joint force, CA is conducted at the tactical level and at the operational level. The CA process at the tactical level includes planning for and gathering data and information



*AV-8B Aircraft in flight*





*Flight of F-14 Aircraft*

on BDA and munitions effects assessment in order to generate quick reattack recommendations and rapid decisions affecting current operations. However, the overall assessment process for joint air operations continues over several days or weeks to evaluate the effectiveness of weapons and tactical engagements as additional information and analysis become available from sources within and outside the operational area. **At the operational level, CA is concerned with planning for and gathering information on the broader results achieved by air operations.** In order for the CA process to be effective, logical links must be established early in the planning sequence. Planners must identify air objectives and tasks along with relevant success indicators and MOEs, with collection management and ISR participation in the planning process.

(3) In general, the CA process at the tactical level provides one of the major sources of information for performing CA at the operational level. Those inputs along with a wide assortment of other information aid in the development of the air component's operational level CA.

(4) The JFACC's operational level CA should be forwarded to the joint force J-3 as one of the components' inputs to the JFC's determination of overall campaign success. The operational level CA can also serve as the basis for important **recommendations** that can affect the JFC's air apportionment decision and the JFACC's allocation of air resources.

(5) Although CA appears to mark the end of the air tasking cycle, it is an ongoing activity that provides important inputs to decision making and supporting processes throughout that cycle.



*E-3A AWACS Aircraft*

## **9. Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance Considerations**

a. **The JFACC is responsible for identifying all validated joint air communications links requirements that support the JFC's mission and allow accomplishment of the JFC directives.** The communications architecture will be distributed by the operations task link message.

b. The ability to exchange information via reliable secure communications with the JFC, joint force staff, and component commanders is key to the successful integration of the joint air effort. Planning must address the following areas:

(1) **Data exchange requirements** will be promulgated as early as possible to ensure that each component can meet interoperable interface requirements. Every effort will be made to confirm data information exchange connectivity requirements during deliberate planning.

(2) Planning for all information exchange requirements and procedures **must consider all elements of information operations.**

(3) **The best mix of computer-aided systems must be available for data transmission.** The JAOC and LNOs depend on secure, reliable, beyond line-of-sight, communications and data exchange equipment in order to respond to joint force requirements.

(a) Normally, the theater battle management core system (TBMCS) is used. The ATO generation and dissemination software portion of TBMCS has been designated the joint standard by the Joint Staff command, control, communications, and computer systems directorate.

This standardized ATO feature allows the JAOC to be interoperable with other force-level Service systems.

(b) Information such as ALLOREQs and sortie allotments are normally exchanged through US message text formats.

*Also see Chairman of the Joint Chiefs of Staff Manual (CJCSM) 6120.5, Tactical Command and Control Planning Guidance and Procedures for Joint Operations — Joint Interface Operational Procedures for Message Text Formats.*

## 10. ISR Considerations

a. The JFC employs forces assigned or attached to the joint force to achieve campaign objectives. The joint force staff develops an overall collection strategy and posture for the execution of the ISR mission. The joint force J-2 reviews, validates, and prioritizes all outstanding intelligence requirements for the JFC.

**b. The JFACC is responsible for planning, coordinating, allocating, and tasking assigned airborne ISR assets to accomplish and fulfill JFC tasks and requirements.** The JAOC will request ISR support from the JFC or another component if assigned assets cannot fulfill specific airborne ISR requirements. It is imperative that the JFACC remains aware of all available surveillance and reconnaissance capabilities that can be integrated into joint air operations.

c. National and non-Department of Defense ISR resources are not normally placed under the JFC's OPCON authority. These resources may provide direct support to the JFC or one of the components, either full-time or on-call, but are normally shared with other commands or components. The supported commander will be provided liaison teams upon request. These teams will normally be the points of contact for coordinating their specific ISR resources and associated capabilities with the supported commander's ISR operators. ISR operators forward the requirements to the appropriate command authority for satisfaction.

d. The ISR personnel are integrated into the JAOC. The complexity of integrating airborne ISR will normally determine whether the function is handled by a specialty team, cell, or division within the JAOC. The JFACC's ISR collection managers and operations planners will work with the joint force staff and other components to effectively coordinate national and theater ISR objectives. The ISR collection elements will manage and satisfy the JFACC's information requirements.

e. The JFACC provides integrated airborne ISR for the JFC. The JAOC provides the joint force integrated information from the JFACC's available airborne ISR support.

*See JP 2-0, Doctrine for Intelligence Support to Joint Operations.*

Intentionally Blank

## APPENDIX A

### JOINT AIR OPERATIONS PLAN FORMAT

The joint air operations plan format uses the same format as the JFC's OPLAN but from an airpower point of view. Each air operations plan will differ with the JOA, situation, and capabilities of the joint force. A sample format follows:

Copy No  
Issuing Headquarters  
Place of Issue  
Date/Time Group of Signature  
JOINT AIR OPERATIONS PLAN: (Number or Code Name)

References: Maps, charts, and other relevant documents.

1. **Situation.** Briefly describe the situation that the plan addresses (see JFC's estimate). The related CONPLAN or OPLAN should be identified as appropriate.

a. Adversary Forces. Provide a summary of pertinent intelligence data including information on the following:

(1) Composition, location, disposition, movements, and strengths of major adversary forces that can influence action in the JOA.

(2) Adversary's strategic concept (if known), should include adversary's perception of friendly vulnerabilities and adversary's intentions regarding those vulnerabilities.

(3) Adversary's major objectives (strategic and operational).

(4) Adversary commander's idiosyncrasies and doctrinal patterns.

(5) Adversary's operational and sustainment capabilities.

(6) Adversary's vulnerabilities.

(7) Adversary's COGs.

(8) Adversary's DPs.

NOTE: Assumed information should be identified as such. Reference may be made to the intelligence annex for more detailed information.

b. Friendly Forces. State information on friendly forces not assigned or attached that may directly affect the command.

(1) Tasks of higher, adjacent, supported, and supporting US commands (e.g., USTRANSCOM, United States Strategic Command, United States Special Operations Command, United States Joint Forces Command).

(2) Tasks of higher, adjacent, supported, and supporting allied or other coalition forces (e.g., North Atlantic Treaty Organization, Spain, Italy, Egypt).

(3) Tasks of other US Government agencies.

(4) Tasks of affected nongovernmental and international organizations.

c. Assumptions. State here assumptions applicable to the plan as a whole. Include specified and implied assumptions.

2. **Mission**. State the joint air task(s) and the purpose(s) and relationship(s) to achieving the JFC's objective(s).

a. Guidance. Provide a summary of directives, letters of instructions, memorandums, treaties, and strategic plans, including any campaign/operation plans received from higher authority that apply to the plan.

b. Relate the JFACC direction to the JFC's requirements.

c. List the objectives and tasks assigned to the command.

d. Constraints — list actions that are prohibited or required by higher authority (ROE, and others as appropriate).

### 3. **Air Operations**

a. Intent. State the commander's intent derived during the planning process. Intent should be a clear, concise statement of what the force must do to succeed with respect to the adversary to reach the desired end state.

b. Concept of Operations. (Based on the relevant major elements of JFC strategy.) State the broad concept for the employment of major air capable joint forces during the operation or campaign as a whole. (This section is a summary of details found in annexes.)

(1) Joint force air organization.

(2) Basing overview.

(3) Operational missions.

(4) Phases of joint air operations in relation to JFC operation or campaign plan.

- (a) Objectives for each phase.
- (b) Subobjectives/tasks for each phase.
- (c) MOEs for each sub-objective/task.
- (5) Timing and duration of phases.
- c. Phase I. Provide a phase directive for each phase.
  - (1) Operational Concept. Include operational objectives, plan of attack, and timing.
  - (2) General missions and guidance to subordinates and components' supporting and supported requirements. Ensure that missions are complementary.
  - (3) Forces required by role or capability. Should consider land, sea, air, space, special operations, and multinational.
  - (4) Tasks of subordinate commands and components.
  - (5) Reserve forces location and composition. State "be prepared" missions. Include guidance on surge sorties if used as reserve capability.
  - (6) Mobility. Consider transportation, ports, lines of communications (LOCs), transit and overflight rights, reinforcement, reception and onward movement, and HNS arrangements.
  - (7) Deception.
  - (8) CSAR. Ensure CSAR is a consideration for all joint air operations.
  - (9) IO.
  - (10) PSYOP. Ensure joint air operations support established PSYOP and vice versa.
- d. Phases II-XX (last). Cite information as stated in subparagraph 3b above for each subsequent phase. Provide a separate phase for each step in the operation at the end of which a major reorganization of forces may be required and another significant action initiated.
- e. Coordinating Instructions. If desired, instructions applicable to two or more phases or multiple elements of the command may be placed here.
- 4. **Logistics.** Brief, broad statement of the sustainment concept for the joint air operations with information and instructions applicable to the joint air operations by phase. Logistic phases must be consistent with operational phases. Logistic considerations should include support as it relates to all involved components (e.g., What the other components will provide in cross-servicing



agreements). This logistic plan should align with the JFC's broader logistic planning efforts. The implementation of the joint logistics centers and boards should be considered in developing this portion of the JAOP (e.g., Joint Movement Center, Joint Petroleum Office and others [see Appendix B, JP 4-0, *Doctrine for Logistic Support of Joint Operations*]). The following list of logistic support is not all inclusive and is dependent on the particular JAOP being executed and the broader campaign plan. See JP 5-00.2, *Joint Task force Planning Guidance and Procedures*, Chapter VIII "JTF Logistics," for a good checklist on logistic issues, which could impact the JAOP. This information may be listed separately and referenced here. This paragraph should address:

- a. Assumptions (including coalition requirements).
- b. Petroleum, oils, and lubricants.
- c. Transportation.
- d. Base development.
- e. Foreign military assistance.
- f. Administrative management.
- g. LOCs.
- h. Reconstitution of forces.
- i. Joint and multinational responsibilities.
- j. Sustainment priorities and resources.
- k. Inter-Service responsibilities.
- l. Host nation considerations.

### 5. **Command, Control, and Communications**

#### a. Command

(1) Command Relationships. State generally the command relationships for the entire joint air operations or portions thereof. Indicate any transfer of forces contemplated including the time of the expected transfer. These changes should be consistent with the operational phasing in paragraph 3. Give location of the commander, JAOC, and command posts.

#### (2) Delegation of Authority.



(3) Planned/unplanned JFACC transition activities.

b. Communications

(1) Communications. Plans of communications. (May refer to a standard plan or be contained in an annex.) Include time zone to be used; rendezvous, recognition, and identification instructions; code; liaison instructions; and axis of signal communications as appropriate.

(2) Electronics. Plans of electronic systems. (May refer to a standard plan or may be contained in an annex.) Include electronic policy and such other information as may be appropriate.

(3) Combat Camera. Plans for combat camera. (May refer to a standard plan or may be contained in a combat camera annex.) Include digital still photo and motion video imagery transmission to the Pentagon's Joint Combat Camera Center.

(4) Weapon Systems Video (WSV) (bomb and gun camera imagery). Plan for WSV. (May refer to a standard plan or may be contained in a combat camera annex.) Include imagery transmission to the Pentagon's Joint Combat Camera Center.

(Signed) (Commander)

ANNEXES: As required

DISTRIBUTION:

SECURITY CLASSIFICATION.

Intentionally Blank

## APPENDIX B

### LIAISON ELEMENTS WITHIN THE JAOC

#### 1. Introduction

Liaison between forces is essential for coordinated and effective joint air operations. Component commanders will exchange liaison elements to assist and coordinate the planning and execution of their component's operations with joint air operations. Liaison elements provide senior level interface for air, land, sea, and special operations forces. These elements consist of personnel who provide component planning and tasking expertise, coordination capabilities, and the ability to deconflict component operations and joint air operations. A brief summary follows of typical liaison elements. Detailed information can be found in respective command and Service documents.

#### 2. Battlefield Coordination Detachment

The Army component commander establishes a BCD to act as the interface between the component commander and the JFACC. The BCD is collocated with the JFACC's staff in the JAOC. The BCD processes land force requests for air support, monitors and interprets the land battle situation in the JAOC, and provides the necessary interface for the exchange of current operational and intelligence data. The BCD expedites the exchange of information through face-to-face coordination with elements in the JAOC, and coordinates air defense and airspace control matters. Immediate and emergency airlift requests are passed to the BCD via the airlift advance notification/coordination net by theater airlift LNOs. The BCD is organized into sections which are incorporated throughout the JAOC (e.g., plans, intelligence, operations, fusion, air defense artillery and Army management, and airlift).

#### 3. Special Operations Liaison Element

The JFSOCC provides a SOLE to the JFACC or appropriate Service component air C2 facility, to coordinate and synchronize special operations forces (SOF) air and surface operations with joint air operations. The SOLE Director places LNOs throughout the JFACC's staff, located in the JAOC. The SOLE coordinates, integrates, and deconflicts all SOF air and surface activities by providing a SOF presence in the JAOC that is aware of the activities of special operations units in the field by providing visibility of SOF operations in the JFACC's ATO and ACO. Special operations must be closely coordinated with joint air operations planning and execution to prevent fratricide, and ensure achievement of mission objectives.

*For more information on the SOLE, see JP 3-05, Doctrine for Joint Special Operations.*

#### 4. Naval and Amphibious Liaison Element

The NALE is responsive to the JFACC on matters pertaining to Navy and Marine Corps amphibious operations. The NALE processes Navy force and Marine Corps landing force requests for air support and monitors and interprets the maritime battle situation in the JAOC.

The NALE provides the necessary interface for the exchange of operational and intelligence data. The NALE also coordinates maritime requirements for air defense support, interdiction, and monitors Navy and Marine Corps airspace and air traffic control requirements and changes. The NALE provides feedback to the organizations within the JAOC on current and future joint air operations concerning integration of force requirements.

### **5. Air Mobility Element**

The air mobility element (AME), as one of the teams within an air mobility division (AMD), deploys to the theater as an extension of the US Air Force Air Mobility Command (AMC) tanker airlift control center (TACC). The AME, as the primary team for providing coordination with the TACC, is requested when USTRANSCOM-assigned air mobility forces are operating in support of the JFC. Direct-delivery intertheater air mobility missions, if required will be coordinated through the AMD and tasked by the AMC TACC. The TACC commander maintains OPCON of direct-delivery missions during execution. The AME ensures the integration of intertheater air mobility missions with intratheater air operations planning.

### **6. Marine Liaison Officer**

The MARLO is the Marine Corps commander's representative within the JAOC and is responsive to the JFACC on matters pertaining to Marine Corps operations. The MARLO provides feedback to organizations within the JAOC on current and future joint air operations concerning integration of force requirements.

### **7. Air Force Liaison Element**

The AFLE provides an interface between the Commander, Air Force forces and the JFACC for coordinating and synchronizing Air Force units in support of joint air operations. Normally, the AFLE is composed of personnel and equipment for a general purpose numbered Air Force's staff and component organizations. AFLE manning is based on a cadre concept with personnel selected for their battle management expertise and knowledge of C2 concepts and procedures. The cadres are augmented by additional personnel who are specialists knowledgeable in the capabilities and tactics of the aircraft, intelligence, or weapons systems being employed. The AFLE can be tailored to perform a variety of missions and management functions to match the contingency or operation.

### **8. Army Air and Missile Defense Liaison Team**

The AAMDC liaison team is the senior Army air defense element and is the primary interface for all land-based air and missile defense force operations. The BCD air defense section will coordinate its activities with the AAMDC liaison team and may augment the AAMDC liaison team as needed. The AAMDC liaison team responsibilities normally include:

- a. Assisting the JFACC/AADC with the area air defense plan development.

- b. Integrating land-based air and missile defense into theater defensive operations.
- c. Advising the JFACC/AADC regarding ROE, airspace control measures, weapons control measures, fire control orders, and air defense warnings.
- d. Advising the JFACC/AADC on matters regarding land-based air and missile defense operations.

## 9. Other Liaison

Liaisons representing coalition/allied forces or interagency organizations may improve JAOC situational awareness and contribute to unity of effort. They provide invaluable information on their nation's (or agencies) capabilities and sensitivities. They can also help overcome cultural barriers. The JFACC must anticipate the need for LNOs and be prepared to proactively coordinate as appropriate.

*See JP 3-0, Doctrine for Joint Operations, and JP 3-16, Joint Doctrine for Multinational Operations, for further discussion on the subject.*

Intentionally Blank

## APPENDIX C

### JAOC DIVISIONS AND DESCRIPTIONS

#### 1. Introduction

The JAOC is the joint air operations C2 center that plans, directs, and executes joint air operations in support of the JFC's OPLAN. Dependent on theater and contingency, and whether the mission involves war or MOOTW, the composition, organization, and functions of the JAOC may need to be tailored. However, the basic framework still applies. Though the use of the word "combat" is used in the title of two of the divisions in the JAOC, the activities in supporting joint air operations may span the range of military operations. These activities may just as well involve planning to accomplish noncombat objectives in a MOOTW scenario. Whether an activity is called a division, cell, branch, or specialty team, is dependent upon the scope and complexity of the operation. For simplicity, the major activities described below are labeled divisions. A brief description of those activities within the JAOC follows.

#### 2. Strategy Division

a. The Strategy Division develops, refines, disseminates, and assesses the progress of the JFACC's strategy. This division is responsible for long-range planning. It should strike a balance between long-range planning and intimate involvement with day-to-day ATO production or execution. The Strategy Division publishes a daily Air Operations Directive that provides the JFACC's guidance for each ATO to the successive planning steps. Furthermore, this document conveys the JFACC's guidance with respect to acceptable levels of risk, usually based on mission-type orders. This gives the operational level planners the information they need to allocate sorties to meet JFC objectives within imposed risk constraints. Although responsible for strategy development, the Strategy Division must remain aware of the detailed planning and execution of the JAOP to ensure continuity from strategy to execution. Although it is located in the JAOC and reports to the JAOC director for continuity with JAOC processes, the Strategy Division has a special direct relationship with the JFACC.

b. The division comprises the Strategy Plans Team and the Operational Assessment Team with representatives from a range of functional areas listed below.

- (1) Weapons systems.
- (2) Modeling/operations research.
- (3) Intelligence.
- (4) ISR.
- (5) Other components.
- (6) Political-military affairs.

- (7) Doctrine/strategy.
- (8) Theater METOC.
- (9) Targeting/mission planning.
- (10) Counterintelligence.
- (11) Space warfare.
- (12) IO.
- (13) Logistics.
- (14) Public affairs.
- (15) CSAR.
- (16) Special operations.
- (17) Medical.
- (18) Deception.
- (19) Communications and computer systems.
- (20) Legal.
- (21) Safety.

### 3. Combat Plans Division

The CPD is responsible for the near-term operations planning function of the JAOC. This division develops detailed plans for the application of air resources based on JFACC-approved guidance received from the Strategy Division. These plans provide the near-term guidance, allocation and apportionment, and tasking instructions for assigned and attached forces, and include the MAAP, air component target nomination list, JIPTL, ACP, ADP, ATO, ACO, and SPINS. The CPD transmits the ATO to the Combat Operations Division (COD) for execution. Generally, the CPD works the two ATO periods beyond the current ATO. The CPD is normally task-organized into four functionally oriented core teams: the JGAT team, the MAAP team, the ATO/ACO production team, and the C2 planning team.

a. **JGAT Team.** The JGAT team, in accordance with the JFACC's prioritized tasks (provided by the Strategy Division), develops the daily JFACC planning guidance, air component target nomination list, and air apportionment recommendation (JFACC guidance letter). The team is



responsible for the development of a comprehensive JIPTL. If the JFC delegates joint targeting coordination authority to the JFACC, the JGAT team receives all target nominations and prioritizes them into the draft JIPTL. All targets are reviewed for compliance with Law of Armed Conflict and ROE before being included on the JIPTL.

b. **MAAP Team.** The MAAP team develops the daily MAAP to accomplish the JFACC tasks and objectives. The daily MAAP coordinates and integrates all air efforts used to develop the ATO. The fundamental responsibility of the MAAP team is to produce a timely and executable ATO. The team is staffed by representatives of most of the types of aircraft or systems that may be on the ATO. The team develops the MAAP in accordance with JFACC guidance, the air apportionment recommendation and prioritized target list. There may be two functionally oriented specialty cells: the fighter/bomber cell and the support planning cells.

(1) The fighter/bomber planning cell plans, coordinates, and tasks the employment of counterair, interdiction, strategic attack and CAS assets. The cell will ordinarily have representation for each type of aircraft and weapons system being employed.

(2) The support planning cells plans, coordinates, and tasks specialized combat support missions including, but not limited to: electronic warfare, CSAR, and special operations. These functionally oriented cells are responsible for each mission being employed with at least one officer assigned for each type of aircraft available for tasking. The cell chief will receive and promulgate JFACC guidance on mission objectives, priorities, timing, and relationships to other joint operations. The cell chief will also direct the preparation of daily coordination plans for specialized combat support missions.

c. **ATO/ACO Production Team.** The ATO/ACO production team is directly responsible for the technical production and distribution of the ATO, ACO, and SPINS. It facilitates the timely production of the daily ATO and ACO, and disseminates them by the most expeditious means available. Normally, the ATO/ACO production team is sub-divided into two functionally oriented cells: the ATO production team and the ACO production team.

d. **C2 Planning Team.** The C2 planning team develops the detailed C2 execution plans and the data link architecture for the JFACC. Major elements include airspace management, theater air defense planning, link interface planning, and C2 architecture support planning. Some of the C2 documents produced are the ACP, ADP, the daily ACO, SPINS, and tactical data link coordination messages.

#### 4. Combat Operations Division

The COD is responsible for monitoring and executing the current ATO. Actions and decisions that apply to the current ATO period are executed through the COD. The COD normally assumes responsibility for the ATO as soon as it is released, usually 12 hours prior to execution.

a. **Current Operations.** This branch consists of a cadre of joint personnel (e.g., judge advocate, fighter, reconnaissance, surveillance, air battle management, combat support, tanker,

bomber, and airlift) experienced in ROE and force application/employment. Within current operations, this branch may be further divided into offensive and defensive cells. Offensive and defensive duty officers bring a broad base knowledge of operations of weapons capabilities and limitations that are required to monitor, and if required, adjust joint air operations. Defensive operations normally include specific air defense/airspace control duties to coordinate all air defense and/or airspace activities. This branch may also be responsible for airspace management activities to ensure flying activities are compatible with mission requirements and coordination with host nation agencies and components. If the JFACC is not the ACA and/or AADC, this branch provides JFACC coordination with whomever has that responsibility.

b. **Meteorological Support.** The meteorological support branch provides forecasts tailored for the various requirements; reports significant weather with emphasis on target weather, refueling tracks and recovery bases; and inputs weather data in TBMCS (if required). Although weather operations are part of the COD, weather information is an integral part of planning air operations.

c. **Operations Support.** Support operations may include airlift, air refueling, reconnaissance, and medical evacuation missions. Mission experts track the flow of assets and status of missions dedicated to each operation. Rapid coordination may be required to meet time-sensitive demands.

*Additional information is contained in JP 3-50.2, Doctrine for Joint Combat Search and Rescue, and JP 3-50.21, JTTP for Combat Search and Rescue.*

## 5. Intelligence, Surveillance, and Reconnaissance Division

The ISR division provides ISR support to airspace planning and execution activities, supporting the JAOC, joint force, and subordinate units. In addition, the ISR division provides oversight and management of JFACC ISR processes internal and external to the JAOC to ensure that the appropriate ISR reporting, planning, tasking, and deconfliction occur to build a common all-source threat and targeting picture. Those ISR personnel ensure continuity of threat picture, and integration of ISR process across the JAOC. Within the JAOC, the ISR division is functionally aligned to provide support for core ISR duties as well as to fully integrate sensor experts, platform experts, and intelligence experts within the other JAOC divisions.

a. **ISR Division Core Teams.** The ISR division has five core teams: Analysis, Correlation and Fusion Team; Targeting and BDA Team; ISR Management Team; Processing, Exploitation, and Dissemination Team; and Sensitive Compartmented Information Management Team. Core personnel provide intelligence products and services that support the entire JAOC, joint force, and subordinate units.

b. **ISR Division Integrated Teams.** The function of ISR integrated teams is to provide direct ISR support to specific strategy, planning, execution, and assessment activities and to ensure the ISR system is meeting the information requirements of the division being supported. Although these personnel receive overall guidance and direction on ISR matters and processes

from the ISR division chief, day-to-day tasking comes from the respective JAOC division chief being supported.

## **6. Air Mobility Division**

a. The AMD plans, coordinates, tasks, and executes the air mobility mission. The AMD is located in the JAOC and is directed by the DIRMBOFOR. The JAOC director ensures the AMD works as an effective division of the JAOC in the air assessment, planning, and execution process. The AMD coordinates with the JFC's movement requirements and control authority, the theater air mobility operations control center, if established, and the AMC TACC as required to derive apportionment guidance, to compute allocation, and to collect requirements. TACC is responsible for publishing, tasking and controlling intertheater air mobility assets. TACC publishes the airlift schedule and forwards it to the AMD. The AMD is responsible for ensuring intertheater assets arriving and departing the JOA are included in the ATO. The DIRMBOFOR, in conjunction with the JAOC director and the JFACC, may adjust the AMD's organizational structure to better interface with the other planning and execution divisions found in the JAOC and to meet the JFACC's requirements. The AMD is normally comprised of five core teams: the Airlift Control Team; the Air Refueling Control Team; the Air Mobility Control Team; the Aeromedical Evacuation Control Team; and the Air Mobility Element. As directed by the DIRMBOFOR, the AMD will task attached intratheater air mobility forces through wing and unit command posts when those forces operate from permanent home bases or wing operations centers if forward deployed.

b. The AMD normally:

(1) Integrates and directs the execution of intratheater and intertheater air mobility forces operating in the JOA and in support of the JFC requirements/objectives.

(2) Maintains the flow of theater- and intertheater air mobility assets in support of JFC objectives.

(3) Coordinates air mobility support for mobility requirements identified and validated by the JFC requirements and movement authority, as appropriate.

(4) Coordinates aerial refueling planning, tasking, and scheduling to support intertheater and intratheater air operations.

(5) Participates in the air assessment, planning, and execution process and coordinates with the JAOC director to ensure the air mobility mission is incorporated in the ATO.

(6) Identifies ISR requirements in support of the air mobility mission.

(7) Ensures air mobility missions are reflected in the ATO/ACO.

(8) Works to ensure in-transit visibility/total asset visibility for passengers and cargo coming through the Defense Transportation System for the JFC, USTRANSCOM, and other supporting combatant commands. The AMD must have the C2 links and personnel to make this an effective part of its daily mission.

## APPENDIX D

### REFERENCES

The development of JP 3-30 is based upon the following sources:

1. JP 0-2, *Unified Action Armed Forces (UNAAF)*.
2. JP 1-01, *Joint Doctrine Development System*.
3. JP 1-02, *DOD Dictionary of Military and Associated Terms*.
4. JP 2-0, *Doctrine for Intelligence Support to Joint Operations*.
5. JP 2-01, *Joint Intelligence Support to Military Operations*.
6. JP 2-01.1, *Joint Tactics, Techniques, and Procedures for Intelligence Support to Targeting*.
7. JP 3-0, *Doctrine for Joint Operations*.
8. JP 3-01, *Joint Doctrine for Countering Air and Missile Threats*.
9. JP 3-01.5, *Doctrine for Joint Theater Missile Defense*.
10. JP 3-02, *Joint Doctrine for Amphibious Operations*.
11. JP 3-03, *Doctrine for Joint Interdiction Operations*.
12. JP 3-04.1, *Joint Tactics, Techniques, and Procedures for Shipboard Helicopter Operations*.
13. JP 3-05, *Doctrine for Joint Special Operations*.
14. JP 3-05.1, *Joint Tactics, Techniques, and Procedures for Joint Special Operations Task Force Operations*.
15. JP 3-05.2, *Joint Tactics, Techniques, and Procedures for Special Operations Targeting and Mission Planning*.
16. JP 3-06, *Doctrine for Joint Urban Operations*.
17. JP 3-09, *Doctrine for Joint Fire Support*.
18. JP 3-09.3, *Joint Tactics, Techniques, and Procedures for Close Air Support*.
19. JP 3-12, *Doctrine for Joint Nuclear Operations*.

20. JP 3-12.1, *Doctrine for Joint Theater Nuclear Operations*.
21. JP 3-13, *Joint Doctrine for Information Operations*.
22. JP 3-14, *Joint Doctrine, Tactics, Techniques, and Procedures for Space Operations*.
23. JP 3-16, *Joint Doctrine for Multinational Operations*.
24. JP 3-17, *Joint Doctrine and Joint Tactics, Techniques, and Procedures for Air Mobility Operations*.
25. JP 3-50.2, *Doctrine for Joint Combat Search and Rescue*.
26. JP 3-50.21, *Joint Tactics, Techniques, and Procedures for Combat Search and Rescue*.
27. JP 3-50.3, *Joint Doctrine for Evasion and Recovery*.
28. JP 3-51, *Joint Doctrine for Electronic Warfare*.
29. JP 3-52, *Doctrine for Joint Airspace Control in the Combat Zone*.
30. JP 3-54, *Joint Doctrine for Operations Security*.
31. JP 3-55, *Joint Doctrine for Intelligence, Surveillance, and Reconnaissance (ISR) Operations*.
32. JP 3-60, *Joint Doctrine for Targeting*.
33. JP 4-0, *Doctrine for Logistic Support of Joint Operations*.
34. JP 4-02.2, *Joint Tactics, Techniques, and Procedures for Patient Movement in Joint Operations*.
35. JP 5-0, *Doctrine for Planning Joint Operations*.
36. JP 5-00.2, *Joint Task Force Planning Guidance and Procedures*.
37. Chairman of the Joint Chiefs of Staff Instruction 3151.01, *Global Command and Control System Common Operational Picture Reporting Requirements*.
38. CJCSM 6120.05, *Tactical Command and Control Planning Guidance and Procedures for Joint Operations — Joint Interface Operational Procedures for Message Text Formats*, 1 Jan 1998.

**APPENDIX E**  
**ADMINISTRATIVE INSTRUCTIONS**

**1. User Comments**

Users in the field are highly encouraged to submit comments on this publication to: Commander, United States Joint Forces Command, Joint Warfighting Center Code JW100, 116 Lake View Parkway, Suffolk, VA 23435-2697. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

**2. Authorship**

The lead agent for this publication is the US Air Force. The Joint Staff doctrine sponsor for this publication is the Director for Operations (J-3).

**3. Supersession**

This publication supersedes JP 3-56.1, 14 November 1994, *Command and Control for Joint Air Operations*.

**4. Change Recommendations**

- a. Recommendations for urgent changes to this publication should be submitted:

TO: HQ AFDC DET 1 LANGLEY AFB VA//CC//  
INFO: JOINT STAFF WASHINGTON DC//J7-JDETD//

Routine changes should be submitted to the Director for Operational Plans and Joint Force Development (J-7), JDETD, 7000 Joint Staff Pentagon, Washington, DC 20318-7000, with info copies to the USJFCOM JWFC.

- b. When a Joint Staff directorate submits a proposal to the Chairman of the Joint Chiefs of Staff that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Military Services and other organizations are requested to notify the Director, J-7, Joint Staff, when changes to source documents reflected in this publication are initiated.

- c. Record of Changes:

CHANGE NUMBER	COPY NUMBER	DATE OF CHANGE	DATE ENTERED	POSTED BY	REMARKS

## 5. Distribution

a. Additional copies of this publication can be obtained through Service publication centers listed below (initial contact) or the USJFCOM JWFC in the event that the joint publication is not available from the Service.

b. Only approved joint publications and joint test publications are releasable outside the combatant commands, Services, and Joint Staff. Release of any classified joint publication to foreign governments or foreign nationals must be requested through the local embassy (Defense Attaché Office) to DIA Foreign Liaison Office, PO-FL, Room 1E811, 7400 Defense Pentagon, Washington, DC 20301-7400.

c. Additional copies should be obtained from the Military Service assigned administrative support responsibility by DOD Directive 5100.3, 15 November 1999, *Support of the Headquarters of Unified, Specified, and Subordinate Joint Commands*.

Army: US Army AG Publication Center SL  
1655 Woodson Road  
Attn: Joint Publications  
St. Louis, MO 63114-6181

Air Force: Air Force Publications Distribution Center  
2800 Eastern Boulevard  
Baltimore, MD 21220-2896

Navy: CO, Naval Inventory Control Point  
700 Robbins Avenue  
Bldg 1, Customer Service  
Philadelphia, PA 19111-5099

Marine Corps: Commander (Attn: Publications)  
814 Radford Blvd, Suite 20321  
Albany, GA 31704-0321

Coast Guard: Commandant Coast Guard (G-OPD), US Coast Guard  
2100 2nd Street, SW  
Washington, DC 20593-0001

Commander  
USJFCOM JWFC Code JW2102  
Doctrine Division (Publication Distribution)  
116 Lake View Parkway  
Suffolk, VA 23435-2697



d. Local reproduction is authorized and access to unclassified publications is unrestricted. However, access to and reproduction authorization for classified joint publications must be in accordance with DOD Regulation 5200.1-R, *Information Security Program*.

Intentionally Blank

## GLOSSARY

### PART I — ABBREVIATIONS AND ACRONYMS

AADC	area air defense commander
AADP	area air defense plan
AAMDC	Army Air and Missile Defense Command
ACA	airspace control authority
ACO	airspace control order
ACP	airspace control plan
ADP	air defense plan
AE	aeromedical evacuation
AFLE	Air Force liaison element
ALLOREQ	allocation request
AMC	Air Mobility Command
AMD	air mobility division
AME	air mobility element
ATO	air tasking order
BCD	battlefield coordination detachment
BDA	battle damage assessment
C2	command and control
C4I	command, control, communications, computers, and intelligence
CA	combat assessment
CAS	close air support
CJCSM	Chairman of the Joint Chiefs of Staff manual
COA	course of action
COD	combat operations division
COG	center of gravity
CONOPS	concept of operations
CONPLAN	concept plan
CPD	combat plans division
CSAR	combat search and rescue
DIRMOBFOR	director of mobility forces
DP	decisive point
HNS	host-nation support
IO	information operations
IPB	intelligence preparation of the battlespace
ISR	intelligence, surveillance, and reconnaissance
J-2	intelligence directorate of a joint staff
J-3	operations directorate of a joint staff

JAOC	joint air operations center
JAOP	joint air operations plan
JFACC	joint force air component commander
JFC	joint force commander
JFLCC	joint force land component commander
JFSOCC	joint force special operations component commander
JGAT	joint guidance, apportionment, and targeting
JPTL	joint integrated prioritized target list
JOA	joint operations area
JOC	joint operations center
JP	joint publication
JTCB	joint targeting coordination board
JTF	joint task force
LNO	liaison officer
LOC	line of communications
MAAP	master air attack plan
MARLO	Marine liaison officer
METOC	meteorological and oceanographic
MOE	measure of effectiveness
MOOTW	military operations other than war
NALE	naval and amphibious liaison element
NGO	nongovernmental organization
OPCON	operational control
OPLAN	operation plan
PSYOP	psychological operations
ROE	rules of engagement
SOF	special operations forces
SOLE	special operations liaison element
SPINS	special instructions
TACC	tanker/airlift control center
TBMCS	theater battle management core system
TPFDD	time-phased force and deployment data
USTRANSCOM	United States Transportation Command
WMD	weapons of mass destruction
WSV	weapon system video

## PART II — TERMS AND DEFINITIONS

**air defense.** All defensive measures designed to destroy attacking enemy aircraft or missiles in the Earth's envelope of atmosphere, or to nullify or reduce the effectiveness of such attack. Also called AD. (JP 1-02)

**air interdiction.** Air operations conducted to destroy, neutralize, or delay the enemy's military potential before it can be brought to bear effectively against friendly forces at such distance from friendly forces that detailed integration of each air mission with the fire and movement of friendly forces is not required. (JP 1-02)

**airspace control authority.** The commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area. Also called ACA. (JP 1-02)

**airspace control order.** An order implementing the airspace control plan that provides the details of the approved requests for airspace control measures. It is published either as part of the air tasking order or as a separate document. Also called ACO. (JP 1-02)

**airspace control plan.** The document approved by the joint force commander that provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility and/or joint operations area. Also called ACP. (JP 1-02)

**air superiority.** That degree of dominance in the air battle of one force over another that permits the conduct of operations by the former and its related land, sea and air forces at a given time and place without prohibitive interference by the opposing force. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

**air support request.** A means to request preplanned and immediate close air support, air interdiction, air reconnaissance, surveillance, escort, helicopter airlift, and other aircraft missions. Also called AIRSUPREQ. (JP 1-02)

**air tasking order.** A method used to task and disseminate to components, subordinate units, and command and control agencies projected sorties, capabilities and/or forces to targets and specific missions. Normally provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions. Also called ATO. (JP 1-02)

**air tasking order/confirmation.** A message used to task joint force components; to inform the requesting command, and the tasking authority of the action being taken; and/or to provide additional information about the mission. The message is used only for preplanned missions and is transmitted on a daily basis, normally 12 hours prior to the start of the air tasking day or in accordance with established operation plans for the operational area. Also called ATOCONF. (JP 1-02)

**allocation.** In a general sense, distribution of limited resources among competing requirements for employment. Specific allocations (e.g., air sorties, nuclear weapons, forces, and transportation) are described as allocation of air sorties, nuclear weapons, etc. (JP 1-02)

**allocation (air).** The translation of the air apportionment decision into total numbers of sorties by aircraft type available for each operation or task. (JP 1-02)

**allocation request.** A message used to provide an estimate of the total air effort, to identify any excess and joint force general support aircraft sorties, and to identify unfilled air requirements. This message is used only for preplanned missions and is transmitted on a daily basis, normally 24 hours prior to the start of the next air tasking day. Also called ALLOREQ. (JP 1-02)

**allotment.** The temporary change of assignment of tactical air forces between subordinate commands. The authority to allot is vested in the commander having combatant command (command authority). (JP 1-02)

**apportionment (air).** The determination and assignment of the total expected effort by percentage and/or by priority that should be devoted to the various air operations for a given period of time. Also called air apportionment. (JP 1-02)

**area air defense commander.** Within a unified command, subordinate unified command, or joint task force, the commander will assign overall responsibility for air defense to a single commander. Normally, this will be the component commander with the preponderance of air defense capability and the command, control, and communications capability to plan and execute integrated air defense operations. Representation from the other components involved will be provided, as appropriate, to the area air defense commander's headquarters. Also called AADC. (JP 1-02)

**centralized control.** 1. In air defense, the control mode whereby a higher echelon makes direct target assignments to fire units. 2. In joint air operations, placing within one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/category of operations. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

**close air support.** Air action by fixed- and rotary-wing aircraft against hostile targets that are in close proximity to friendly forces and that require detailed integration of each air mission with the fire and movement of those forces. Also called CAS. (JP 1-02)

**collateral damage.** Unintentional or incidental injury or damage to persons or objects that would not be lawful military targets in the circumstances ruling at the time. Such damage is not unlawful so long as it is not excessive in light of the overall military advantage anticipated from the attack. (JP 1-02)

**combat assessment.** The determination of the overall effectiveness of force employment during military operations. Combat assessment is composed of three major components: (a) battle damage assessment; (b) munitions effectiveness assessment; and (c) reattack recommendation. Also called CA. (JP 1-02)

**coordinating authority.** A commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more Military Departments, two or more joint force components, or two or more forces of the same Service. The commander or individual has the authority to require consultation between the agencies involved, but does not have the authority to compel agreement. In the event that essential agreement cannot be obtained, the matter shall be referred to the appointing authority. Coordinating authority is a consultation relationship, not an authority through which command may be exercised. Coordinating authority is more applicable to planning and similar activities than to operations. (JP 1-02)

**counterair.** A mission that integrates offensive and defensive operations to attain and maintain a desired degree of air superiority. Counterair missions are designed to destroy or negate enemy aircraft and missiles, both before and after launch. (JP 1-02)

**decentralized execution.** Delegation of execution authority to subordinate commanders. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

**decisive point.** A geographic place, specific key event, critical system, or function that allows commanders to gain a marked advantage over an enemy and greatly influence the outcome of an attack. (JP 1-02)

**director of mobility forces.** Normally a senior officer who is familiar with the area of responsibility or joint operations area and possesses an extensive background in air mobility operations. When established, the director of mobility forces serves as the designated agent for all air mobility issues in the area of responsibility or joint operations area, and for other duties as directed. The director of mobility forces exercises coordinating authority between the air operations center (or appropriate theater command and control node), the tanker airlift control center, the air mobility operations control center (when established and when supporting subordinate command objectives), and the joint movement center, in order to expedite the resolution of air mobility issues. The director of mobility forces may be sourced from the theater's organizations or US Transportation Command. Additionally, the director of mobility forces, when designated, will ensure the effective integration of intertheater and intratheater air mobility operations, and facilitate the conduct of intratheater air mobility operations. Also called DIRMObFOR. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

**end state.** The set of required conditions that defines achievement of the commander's objectives. (JP 1-02)



**high-payoff target.** A target whose loss to the enemy will significantly contribute to the success of the friendly course of action. High-payoff targets are those high-value targets that must be acquired and successfully attacked for the success of the friendly commander's mission. Also called HPT. (JP 1-02)

**high-payoff target list.** A prioritized list of high pay-off targets by phase of the joint operation. Also called HPTL. (JP 1-02)

**high-value target.** A target the enemy commander requires for the successful completion of the mission. The loss of high-value targets would be expected to seriously degrade important enemy functions throughout the friendly commander's area of interest. Also called HVT. (JP 1-02)

**immediate targets.** Targets that have been identified too late, or not selected for action in time to be included in the normal targeting process, and therefore have not been scheduled. Immediate targets have two subcategories: unplanned and unanticipated. (JP 1-02)

**intelligence preparation of the battlespace.** An analytical methodology employed to reduce uncertainties concerning the enemy, environment, and terrain for all types of operations. Intelligence preparation of the battlespace builds an extensive database for each potential area in which a unit may be required to operate. The database is then analyzed in detail to determine the impact of the enemy, environment, and terrain on operations and presents it in graphic form. Intelligence preparation of the battlespace is a continuing process. Also called IPB. (JP 1-02)

**interdiction.** An action to divert, disrupt, delay, or destroy the enemy's surface military potential before it can be used effectively against friendly forces. (JP 1-02)

**joint air operations.** Air operations performed with air capabilities/forces made available by components in support of the joint force commander's operation or campaign objectives, or in support of other components of the joint force. (JP 1-02)

**joint air operations center.** A jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives. Also called JAOC. (JP 1-02)

**joint air operations plan.** A plan for a connected series of joint air operations to achieve the joint force commander's objectives within a given time and joint operational area. Also called JAOP. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

**joint force air component commander.** The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking air forces; planning and coordinating air operations; or accomplishing such

operational missions as may be assigned. The joint force air component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. Also called JFACC. (JP 1-02)

**joint guidance, apportionment, and targeting team.** A group that makes recommendations for air apportionment to engage targets, and provides other targeting support requiring component input at the joint force air component commander level. Also called JGAT team. (JP 1-02)

**joint integrated prioritized target list.** A prioritized list of targets and associated data approved by the joint force commander or designated representative and maintained by a joint force. Targets and priorities are derived from the recommendations of components in conjunction with their proposed operations supporting the joint force commander's objectives and guidance. Also called JIPTL. (JP 1-02)

**joint special operations air component commander.** The commander within the joint force special operations command responsible for planning and executing joint special air operations and for coordinating and deconflicting such operations with conventional nonspecial operations air activities. The joint special operations air component commander normally will be the commander with the preponderance of assets and/or greatest ability to plan, coordinate, allocate, task, control, and support the assigned joint special operations aviation assets. The joint special operations air component commander may be directly subordinate to the joint force special operations component commander or to any nonspecial operations component or joint force commander as directed. Also called JSOACC. (JP 1-02)

**joint targeting coordination board.** A group formed by the joint force commander to accomplish broad targeting oversight functions that may include but are not limited to coordinating targeting information, providing targeting guidance and priorities, and refining the joint integrated prioritized target list. The board is normally comprised of representatives from the joint force staff, all components, and if required, component subordinate units. Also called JTCB. (JP 1-02)

**master air attack plan.** A plan that contains key information that forms the foundation of the joint air tasking order. Sometimes referred to as the air employment plan or joint air tasking order shell. Information that may be found in the plan includes joint force commander guidance, joint force air component commander guidance, support plans, component requests, target update requests, availability of capabilities and forces, target information from target lists, aircraft allocation, etc. Also called MAAP. (JP 1-02)

**measures of effectiveness.** Tools used to measure results achieved in the overall mission and execution of assigned tasks. Measures of effectiveness are a prerequisite to the performance of combat assessment. Also called MOEs. (JP 1-02)

**mission.** 1. The task, together with the purpose, that clearly indicates the action to be taken and the reason therefore. 2. In common usage, especially when applied to lower military units, a duty assigned to an individual or unit; a task. 3. The dispatching of one or more aircraft to accomplish one particular task. (JP 1-02)

**no-strike list.** A list of geographic areas, complexes, or installations not planned for capture or destruction. Attacking these may violate the law of armed conflict or interfere with friendly relations with indigenous personnel or governments. Also called NSL. (JP 1-02)

**on-call targets.** Planned targets that are known to exist in an operational area and are located in sufficient time for deliberate planning to meet emerging situations specific to campaign objectives. (JP 1-02)

**operation plan.** Any plan, except for the Single Integrated Operational Plan, for the conduct of military operations. Plans are prepared by combatant commanders in response to requirements established by the Chairman of the Joint Chiefs of Staff and by commanders of subordinate commands in response to requirements tasked by the establishing unified commander. Operation plans are prepared in either a complete format (OPLAN) or as a concept plan (CONPLAN). The CONPLAN can be published with or without a time-phased force and deployment data (TPFDD) file. a. OPLAN — An operation plan for the conduct of joint operations that can be used as a basis for development of an operation order (OPORD). An OPLAN identifies the forces and supplies required to execute the combatant commander's strategic concept and a movement schedule of these resources to the theater of operations. The forces and supplies are identified in TPFDD files. OPLANs will include all phases of the tasked operation. The plan is prepared with the appropriate annexes, appendixes, and TPFDD files as described in the Joint Operation Planning and Execution System manuals containing planning policies, procedures, and formats. Also called OPLAN. b. CONPLAN — An operation plan in an abbreviated format that would require considerable expansion or alteration to convert it into an OPLAN or OPORD. A CONPLAN contains the combatant commander's strategic concept and those annexes and appendixes deemed necessary by the combatant commander to complete planning. Generally, detailed support requirements are not calculated and TPFDD files are not prepared. c. CONPLAN with TPFDD — A CONPLAN with TPFDD is the same as a CONPLAN except that it requires more detailed planning for phased deployment of forces. Also called CONPLAN. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

**planned targets.** Targets that are known to exist in an operational area, and against which effects are scheduled in advance or are on-call. Examples range from targets on joint target lists in the applicable campaign plans, to targets detected in sufficient time to list in the air tasking order, mission-type orders, or fire support plans. Planned targets have two subcategories: scheduled or on-call. (JP 1-02)

**reachback.** The process of obtaining products, services, and applications, or forces, or equipment, or material from organizations that are not forward deployed. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

**restricted target list.** A list of restricted targets nominated by elements of the joint force and approved by the joint force commander. This list also includes restricted targets directed by higher authorities. Also called RTL. (JP 1-02)

**restricted targets.** Targets that have specific restrictions imposed upon them. Actions that exceed specified restrictions are prohibited until coordinated and approved by the establishing headquarters. (This term and its definition modify the existing term “restricted target” and its definition and are approved for inclusion in the next edition of JP 1-02.)

**scheduled targets.** Planned targets upon which fires will be delivered at a specific time. (JP 1-02)

**sortie.** In air operations, an operational flight by one aircraft. (JP 1-02)

**sortie allotment message.** The means by which the joint force commander allots excess sorties to meet requirements of subordinate commanders that are expressed in their air employment/ allocation plan. Also called SORTIEALOT. (JP 1-02)

**target.** 1. An area, complex, installation, force, equipment, capability, function, or behavior identified for possible action to support the commander’s objectives, guidance, and intent. Targets fall into two general categories: planned and immediate. 2. In intelligence usage, a country, area, installation, agency, or person against which intelligence operations are directed. 3. An area designated and numbered for future firing. 4. In gunfire support usage, an impact burst that hits the target. (JP 1-02)

**target analysis.** An examination of potential targets to determine military importance, priority of attack, and weapons required to obtain a desired level of damage or casualties. (JP 1-02)

**target component.** A set of targets within a target system performing a similar function. (JP 1-02)

**targeting.** The process of selecting and prioritizing targets and matching the appropriate response to them, taking account of operational requirements and capabilities. (JP 1-02)

**targeting effects.** The cumulative results of actions taken to attack targets and target systems by lethal and nonlethal means. (JP 1-02)

**target list.** The listing of targets maintained and promulgated by the senior echelon of command; it contains those targets that are to be engaged by supporting arms, as distinguished from a “list of targets” that may be maintained by any echelon as confirmed, suspected, or possible targets for informational and planning purposes. (JP 1-02)

**target nomination list.** A list of targets nominated by component commanders, national agencies, or the joint force commander staff for potential inclusion on the joint integrated prioritized target list to support joint force commander objectives and priorities. Also called TNL. (JP 1-02)

**target of opportunity.** A target visible to a surface or air sensor or observer, which is within range of available weapons and against which fire has not been scheduled or requested. (JP 1-02)

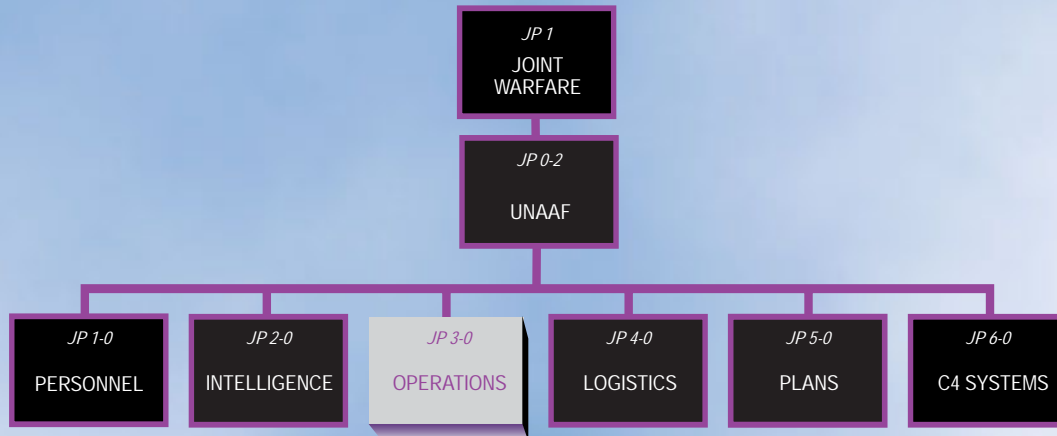
**target system.** 1. All the targets situated in a particular geographic area and functionally related.  
2. A group of targets that are so related that their destruction will produce some particular effect desired by the attacker. (JP 1-02)

**unanticipated immediate targets.** Those immediate targets that are unknown or not expected to exist in an operational area. (JP 1-02)

**unplanned immediate targets.** Those immediate targets that are known to exist in an operational area but are not detected, located, or selected for action in sufficient time to be included in the normal targeting process. (JP 1-02)

**weapon system video.** 1. Imagery recorded by video camera systems aboard aircraft or ship that shows delivery and impact of air-to-ground, or surface-to-air ordnance and air-to-air engagements. 2. A term used to describe the overarching program or process of capturing, clipping, digitizing, editing, and transmitting heads-up display or multi-function display imagery. 3. A term used to refer to actual equipment used by various career fields to perform all or part of the weapon system video process. Also called WSV. (This term and its definition are approved for inclusion in the next edition of JP 1-02.)

# JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. **Joint Publication (JP) 3-30** is in the **Operations** series of joint doctrine publications. The diagram below illustrates an overview of the development process:

